

TCEQ DOCKET NO. 2012-1562-MIS-U

APPEAL OF EXECUTIVE DIRECTOR'S NEGATIVE USE DETERMINATION ISSUED TO COTTONWOOD ENERGY COMPANY LP (NO. 15505, 16410, 16411, 16412)	§ § § § §	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
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COTTONWOOD ENERGY COMPANY LP'S REPLY TO RESPONSE BRIEFS

Cottonwood Energy Company LP ("Cottonwood" or "Applicant") files this Reply to the Responses of the Executive Director, Office of Public Interest Counsel ("OPIC") and the Newton County Appraisal District (the "Appraisal District") regarding the appeal of the negative use determination issued by the Executive Director on July 10, 2012.

Cottonwood refers the Commissioners to its Appeal Brief for a complete history on the Pollution Control Property Program and the procedural history of this case.¹ This Reply Brief will not reiterate that background, but instead focus on the arguments made by the Executive Director, OPIC, and the Appraisal District. Following a brief summary of Applicant's argument, Parts II-VI of this Reply Brief detail why the arguments made by the Executive Director, OPIC, and the Appraisal District in support of the negative use determination are a misapplication of Texas law, are based on policy concerns outside of the Agency's purview, and are founded on an inadequate technical evaluation.

I. Summary of Argument

The various arguments from the Executive Director, OPIC, and the Appraisal District go to great lengths to explain why the Executive Director is completely reversing course since issuing 25 positive use determinations to essentially the same type of equipment that is the subject of this appeal. Yet all the Response Briefs miss the fundamental underlying point of the pending appeals – that the express language and structure of Texas Tax Code §§11.31(k-m) make clear that the Executive Director does not have the discretion to issue negative use determinations to equipment listed in Texas Tax Code §11.31(k). In other words, the question is not whether the equipment is pollution control property – the legislature has already determined that it is. The question is how much of a percentage positive use determination should be issued.

This appeal should be granted and the negative use determinations remanded so the Executive Director can conduct the review necessary to ensure that the TCEQ does the job the legislature has instructed them to do – to acknowledge the legislatively-established pollution control benefits of the equipment in question and then determine the percentage of positive use determination for the equipment in question given the concurrent pollution control and

¹ Cottonwood Energy Company LP – Appeal of July 10, 2012 Negative Use Determinations, July 31, 2012.

production benefits resulting from the thermal efficiency improvements of the heat recovery steam generators (HRSGs).

II. Procedural Error – The Executive Director Failed to Provide a Technical Evaluation of the Application

In its response brief, OPIC states that it defers to the Executive Director’s technical evaluation of whether HRSGs qualify as pollution control equipment. OPIC states, “Although the July 10, 2012 letter provides no information as to why the Executive Director no longer considers HRSGs pollution control equipment, OPIC defers to the Executive Director on this technical issue and anticipates that the Executive Director’s response brief will provide adequate explanation. Further explanation from the Executive Director as well as the Commission’s Agenda discussion and subsequent order memorializing the Commissioners’ decision on this matter will serve to complete the record.”²

As the OPIC acknowledges, the Executive Director’s negative use determinations completely failed to articulate any basis for the decisions. Now, after the fact, the Executive Director attempts to justify what was clearly an arbitrary decision. As an attachment to its response brief, the Executive Director provided a one-page document entitled “Application Review Summary” for each of the appealed applications.³ The inclusion of the Application Review Summary in its response brief is the first time the Executive Director made this document available to Applicant and the public. By failing to provide this document to the Applicant until filing its response brief, the Executive Director prevented the Applicant from evaluating the technical basis of the Executive Director’s determination before the deadline for appeals had passed. This approach to technical review and documentation and distribution of same sets a bad precedent, is highly prejudicial, and should not be allowed.

Furthermore, even if the Executive Director had provided this document to the Applicant, the Application Review Summary is woefully insufficient, as it provides no discussion of the technical merits of the Executive Director’s conclusion that HRSGs and associated dedicated ancillary equipment are used wholly for production purposes. The Final Determination for three of the Applicant’s four HRSG applications states, “A negative determination for the heat recovery steam generator and associated dedicated ancillary equipment.”⁴ The other Application Review Summary states, “A negative determination for the heat recovery steam generator and its dedicated ancillary equipment are used for production not pollution control and therefore are not eligible for tax relief. Further, the cited regulations do not require installation of the heat recovery steam generator.”⁵

The fact that the Executive Director initially provided no information that could be considered a technical evaluation and that the Applicant had to wait until the Executive Director filed a

² Office of Public Interest Counsel’s Response to Appeal of Negative Use Determination (“OPIC Response Brief”), October 4, 2012, pp. 12-13.

³ Executive Director’s Application Review Summary for the Cottonwood Energy Center (Attachment 1). It should be noted that Cottonwood filed a separate application for each of its four HRSGs.

⁴ *Id.*

⁵ *Id.*

response brief in this appeal to receive any information regarding its negative use determination offers yet another example of the Executive Director's failure to comply with the statutory requirements in §11.31. In fact, the Application Review Summary that the Executive Director did provide includes no analysis to support the Executive Director's position that HRSGs are entirely production equipment and cannot be considered an actual technical evaluation. It merely restates the Executive Director's conclusion without providing any context, insight into, or technical basis for that conclusion. The Application Review Summary should be rejected as failing to comply with the statutory requirements in §11.31 and, even if taken into consideration by the Commissioners, provides no basis for the Executive Director's erroneous decision.

III. Texas Tax Code §§ 11.31(k) and 11.31(m) Do Not Provide the Executive Director With Authority to Issue a Negative Use Determination for Property Listed in §11.31(k)

The Executive Director, OPIC, and the Appraisal District each argue that when the Legislature listed items in §11.31(k), it did not intend for these items to qualify for a positive use determination. Instead, they argue that the Legislature merely intended for the property listed in §11.31(k) to be reviewed to determine eligibility for a use determination.⁶ This renders the legislative language meaningless. Section 11.31 must be construed to give effect to the Legislature's intent.⁷ An agency or court should first attempt to determine this intent from the actual language used by the Legislature. That is, an agency or court should first look to the plain, ordinary meaning of the statute's words.⁸ Most importantly, "[i]f a statute is clear and unambiguous, [the courts] apply its words according to their common meaning without resort to rules of construction or extrinsic aids."⁹

Sections 11.31(k) and (m) direct that the Commission "shall determine that" heat recovery steam generators are "used wholly or partly as facility, device, or method for the control of air, water, or land pollution."¹⁰ Other than passing a rule to remove this equipment from an established list of pollution control equipment (based on compelling evidence that the equipment does not provide pollution control benefits), there is no option under the statute for TCEQ to determine that equipment listed in §11.31(k) is not pollution control equipment. Put simply, based on the language of the statute, if an item is listed in §11.31(k), the question is not "whether the equipment is pollution control property," but instead should be "what percentage is pollution control property."

A. Section 11.31(k)-(l)

Section 11.31(k) states:

⁶ Executive Director's Response to the Appeals Filed on the Negative Use Determinations for the Heat Recovery Steam Generator Applications ("Executive Director Response Brief"), October 4, 2012, p. 12; OPIC Response Brief at 9; Appraisal District Response Brief at 2.

⁷ See TEX. GOV'T CODE §312.005; *Gilbert v. El Paso County Hosp. Dist.*, 38 S.W.3d 85 (Tex. 2001).

⁸ See TEX. GOV'T CODE §312.002(a); *Am. Home Prods. Corp. v. Clark*, 38 S.W.3d 92, 95-96 (Tex. 2000); *Crimmins v. Lowry*, 691 S.W.2d 582, 584 (Tex. 1985).

⁹ *In Re Nash*, 220 S.W.3d 914, 917 (Tex. 2007).

¹⁰ TEX. TAX CODE §11.31(k) & (m).

“[t]he Texas Commission on Environmental Quality shall adopt rules establishing a nonexclusive list of facilities, devices, or methods for the control of air, water, or land pollution, which must include: ...

(8) heat recovery steam generators.”¹¹

The very purpose of this section is to provide a list of equipment that the Legislature determined was “for the control of air, water, or land pollution.” It seems incredibly far-fetched to argue that the Legislature provided a list of equipment that it specifically designated as “for the control of pollution” but did not intend for the equipment listed therein to be considered pollution control equipment.

Moreover, the Legislature included language describing an option to add items to the §11.31(k) list when it stated in subsection (k)(18) “any other equipment designed to prevent, capture, abate, or monitor nitrogen oxides, volatile organic compounds, particulate matter, mercury, carbon monoxide, or any criteria pollutant.”¹² A plain reading of this language demonstrates that the Legislature had determined that each of the previously listed items were “equipment designed to prevent, capture, abate, or monitor” pollution.

Furthermore, §11.31(l) requires that the TCEQ must update the §11.31(k) list at least once every three years. An item may be removed from the list, but only if the TCEQ “finds compelling evidence to support the conclusion that the item does not provide pollution control benefits.” By including HRSGs on the list, the Legislature determined that these items provided a pollution control benefit unless and until the TCEQ found compelling evidence to the contrary. The TCEQ has not provided compelling evidence that HRSGs do not provide a pollution control benefit. Nor has the TCEQ initiated a rulemaking to remove these items from the list contemplated in §11.31(k).

To summarize, in this statute, the Legislature states in §11.31(k-l) that the equipment listed in §11.31(k): 1) is “for the control of air, water, or land pollution”; 2) is “designed to prevent, capture, abate, or monitor” pollution; and 3) can only be removed from the statutorily-directed list of pollution control equipment if the Executive Director provides “compelling evidence” that the equipment “does not provide pollution control benefits.” To suggest that the Legislature placed the list in the statute as mere surplusage and intended for TCEQ to have the discretion to issue negative use determinations on the ad hoc basis currently being proposed stretches the bounds of any reasonable interpretation and effectively disregards the language of the statute and intent of the Legislature.

B. Section 11.31(m)

Section 11.31(m) provides the Executive Director with a very clear directive about how to handle applications for items listed in §11.31(k). Section 11.31(m) states:

“Notwithstanding the other provisions of this section, if the facility, device, or method . . . is . . . included on the list adopted under Subsection (k), the executive

¹¹ TEX. TAX CODE §11.31(k).

¹² TEX. TAX CODE §11.31(k)(18).

director of the Texas Commission on Environmental Quality, . . . , shall determine that the facility, device, or method described in the application is used wholly or partly . . . for the control of air, water, or land pollution . . .” (emphasis added).

A close reading of this section reveals that if an entity submits an application for a pollution control property tax exemption for an item that is listed in §11.31(k), the Executive Director has 30 days within which, he must determine that the item described in the application is used wholly or partly for the control of air, water, or land pollution. Furthermore, this section provides that the Executive Director must make this determination without regard to whether information about the environmental benefit of the item is provided in the application. The only reasonable reading of this language is that the Legislature had determined that the items listed in §11.31(k) were pollution control property and thus, did not want the TCEQ to require a demonstration that an environmental benefit existed or get bogged down in that determination.

The Executive Director’s brief then states that tax exemptions must be strictly construed against a taxpayer. In this case strict construction requires, at minimum, a partial positive use determination because the statute recognizes the equipment as pollution control property. When interpreting legislation, courts are generally required to ascertain and apply the plain meaning of a statute.¹³ And, while any legislative grace provided through an express deduction or exemption from a tax is strictly construed against the taxpayer,¹⁴ the statute cannot be so narrowly construed as to avoid the plain meaning of the words used or to destroy the very purpose of an exemption. The Austin Court of Civil Appeals has cited with approval, the following correct reasoning with respect to the scope of a tax exemption:

“[T]he . . . exemption must be viewed in light of the legislative intent . . . Although construction of exemption statutes is generally to be construed against the taxpayer, the overall scheme and intent of the legislation must not be overlooked.”¹⁵

As described above, the statutory language clearly indicates that the Legislature considers the items listed in §11.31(k) as equipment for the control of air, water, or land pollution. This is further supported by the fact that under §11.31(m) applicants for items listed in §11.31(k) are not required to submit information regarding the environmental benefit. This is not to suggest that the equipment does not have to provide an environmental benefit, it merely demonstrates that the Legislature already determined that these pieces of equipment by their very nature provide an environmental benefit and therefore, it is not necessary for applicants to provide this information to the Executive Director.

It is also important to note the textual difference between the limiting instructions given in §11.31(m) and the discretion afforded under §11.31(d). For equipment not listed in §11.31(k), §11.31(d) allows the TCEQ discretion to “determine if [equipment] is [pollution control property]” (emphasis added). However, §11.31(m) limits that discretion by using the phrase

¹³ See *Fitzgerald v. Advanced Spine Fixation Syst., Inc.*, 996 S.W.2d 864, 865-66 (Tex. 1999) (courts must apply plain meaning of statute).

¹⁴ *Upjohn Co. v. Rylander*, 38 S.W.3d 600, 606 (Tex. App. — Austin 2000, pet. denied).

¹⁵ *Sharp vs. Tyler Pipe*, 919 S.W.2d 157 (Tex. App.—Austin 1996, writ denied).

“determine that” instead of “determine if”. As previously discussed, §11.31 must be construed to give effect to the Legislature’s intent.¹⁶ Furthermore, “[w]ords and phrases shall be read in context and construed according to the rules of grammar and common usage.”¹⁷

Considering the clear and unambiguous language, as well as the structure, of §11.31(d), (k), (l), & (m), three things are clear:

(1) the equipment listed in §11.31(k) must be considered pollution control property, thereby precluding a negative use determination by the TCEQ;

(2) the only method by which the TCEQ could issue a negative use determination to an item on the 11.31(k) list would be to go through rulemaking and, based on compelling evidence demonstrating that an item does not provide pollution control benefits, remove that item from the statutorily-directed list; and

(3) the TCEQ is afforded discretion to issue partial positive use determinations to take into account concurrent pollution control and production benefits of equipment.

Appellant respectfully submits that the debate about items 1 and 2 ends, so the TCEQ can do the job the Legislature has asked it to do under item 3.

C. Executive Director’s Legislative Acceptance Argument is Without Merit

After claiming that TCEQ can ignore the Legislature’s instruction to recognize the equipment listed in §11.31(k) as pollution control property, the Executive Director then proceeds to argue that the Legislature has acquiesced in the TCEQ’s current refusal to follow the statute.¹⁸ Not only does the Executive Director’s argument lack merit, the doctrine it cites actually supports the Appellants’ position. As evidence of how it intended to implement §11.31(k-m), the Executive Director relies not upon an actual case applying the statute or the express language of a rule implementing the statute, but rather a reference in a rulemaking preamble. What the Executive Director fails to mention is that, the last two times the Legislature was in session, the Executive Director had already applied §§11.31(k-m) to grant 100% positive use determinations for HRSGs in 25 separate instances. If the legislative acceptance argument has any applicability here, it would be that the Legislature’s acceptance is of the Commission’s implementation of §11.31(k) as applied to the 25 HRSG applications.

Even if the Commission were to conclude that the Executive Director’s previous application of §§11.31(k-m) as applied to HRSG applications does not negate the legislative acceptance argument, a review of the case law cited by the Executive Director demonstrates that the legislative acceptance argument would still not apply in the instant case. In the case cited by the Executive Director supporting the legislative acceptance argument, *Grocers Supply Co. v. Sharp*, the Court actually denied applying the legislative acceptance argument because the Agency’s

¹⁶ See TEX. GOV’T CODE §312.005; *Gilbert v. El Paso County Hosp. Dist.*, 38 S.W.3d 85 (Tex. 2001).

¹⁷ TEX. GOV’T CODE §311.011(a).

¹⁸ Executive Director’s Response Brief at 7.

interpretation of the statute was uncertain over time and the statute was unambiguous.¹⁹ The Court stated, “We cannot conclude that the legislature’s reenactment of the exemptions without change constitutes an acceptance of an interpretation contrary to the precedent.”²⁰ The only previous formal action that the TCEQ ever took regarding the Group I HRSG applications was to grant 100% percent positive use determinations. By granting a 100% positive use determination to HRSG applications, it would appear that the Agency’s interpretation was that HRSGs qualified as pollution control property.

Even more importantly, §11.31 is not ambiguous. It has already been stated, but bears repeating, §11.31 must be construed to give effect to the Legislature’s intent.²¹ The legislative acceptance argument falls flat when the statute is clear, for “[n]either legislative ratification nor judicial deference to an administrative interpretation can work a contradiction of plain statutory language.”²² When the statutory provisions in the statute clearly contradict the agency’s interpretation, the agency’s erroneous interpretation should be given no deference. While the Executive Director may now interpret the statute so that equipment listed in §11.31(k) could be determined not to be pollution control property, the statute does not allow for such an interpretation.

IV. Failure to Comply with the Commission Rules and the Texas Administrative Procedures Act

Under the Administrative Procedures Act (“APA”) states agencies are required to follow certain formal procedures before adopting and applying any “rule.” A “rule” is defined as “a state agency statement of general applicability that...implements, interprets, or prescribes law or policy.”²³ In reaching and applying its new interpretation of §§11.31(k) and 11.31(m), the Commission failed to follow the procedures of the APA and should therefore, be disregarded.

The Executive Director argues that rulemaking was not necessary for the Executive Director or the Commission to issue negative use determinations for the HRSG applications. The Executive Director states that the determination that each of the HRSG applications should be denied was the result of a case-by-case review of each application and that the Executive Director generated a “technical review” for each application. Finally, the Executive Director states the change in interpretation is not of a rule of general applicability because it affects a limited number of Applicants for a use determination.²⁴

The Executive Director’s argument that APA rulemaking requirements do not apply to the unexplained and undocumented statement of the Executive Director that “[h]eat recovery steam generators are used solely for production; therefore, are not eligible for a positive use determination” is without merit. There was no case-by-case analysis in the Executive Director’s

¹⁹ *Grocers Supply*, 978 S.W.2d at 644.

²⁰ *Id.*

²¹ See TEX. GOV’T CODE §312.005; *Gilbert v. El Paso County Hosp. Dist.*, 38 S.W.3d 85 (Tex. 2001).

²² See *Pretzer v. Motor Vehicle Bd.*, 138 S.W.3d 908, 915 (Tex. 2004); see also *Barchus v. State Farm Fire & Cas. Co.*, 167 S.W.3d 575, 578 (Tex. App.—Houston [14th Dist.] 2005, pet denied).

²³ TEX. GOV’T CODE § 2001.003(6).

²⁴ Executive Director Response Brief at 17.

general negative use determination. The statement is a rule as defined by the APA; in fact it is a statement that applies generally to an identified segment or class of the regulated public (HRSG owners) and seeks to implement, interpret and prescribe law or policy. In addition, the statement, in effect, amends 30 TAC §§17.4 and 17.17 which previously were adopted pursuant to notice and comment procedure under APA §§ 2001.023, 2001.025, 2001.029 and 2001.033.

The statement is an “interpretive rule,” defined by Professor Ron Beal as an agency statement made outside of a contested case hearing or notice and comment rule-making by which the agency sets forth how the agency intends to interpret and apply a statute or substantive rule to all persons similarly situated.²⁵ The statement is a rule if it meets a four part test according to Professor Beal:

- (1) It is issued by an agency board, commission, executive director or other officer vested with the power to act on behalf of the agency;
- (2) It is issued with the intent of the agency to notify persons or entities that are similarly situated or within a class described in general terms;
- (3) It is issued to notify those persons or entities of the agency’s interpretation of a statutory provision [or substantive rule] which has been crystallized following reflective examination in the course of the agency’s interpretive process;
- (4) Such interpretation was not labeled as tentative or otherwise qualified by arrangement for consideration at a later date.

The Executive Director’s negative use determinations meet every part of this test.

An interpretive rule, like the Executive Director’s negative use determinations, is invalid in Texas for failure to adhere to mandatory APA notice and comment procedure.²⁶ In *Combs v. Entertainment Publications, Inc.*, the Comptroller had issued, in a 2007 letter ruling (Accession No. 200704926L), guidelines for determining whether a fundraising firm or a school organization was a “seller” for purposes of collecting sales tax. In March and April of 2008, the Comptroller issued two letters essentially changing the import or interpretation of the 2007 letter. Plaintiff filed suit for injunctive relief against enforcement of the changed interpretation, sought declaratory relief under §2001.038 of the APA that the “rule” embodied in the 2008 letters was invalid, and sought declaratory relief under the Uniform Declaratory Judgments Act (“UDJA”) that the Comptroller exceeded her statutory authority under §151.024 of the tax code in adopting that “rule” and applying §151.024 to the plaintiff.

The Court of Appeals affirmed the district court ruling that it had jurisdiction under §2001.038 of the APA and that the 2008 letters were invalid because of the failure to comply with the notice

²⁵ Ron Beal, *A Miry Bog Part II: UDJA and APA Declaratory Judgment Actions and Agency Statements Made Outside a Contested Case Hearing Regarding the Meaning of the Law*, 59 Baylor L. Rev. 267, 270 (2007); see also Ron Beal, *The APA and Rulemaking: Lack of Uniformity Within a Uniform System*, 56 Baylor L. Rev. 1, 29-46 (2004).

²⁶ *Combs v. Entertainment Publications, Inc.*, 292 S.W.3d 712, 723-24 and footnote 6 (Tex.App.—Austin 2009, no pet.)

and comment procedural requirements of the APA. Also affirmed was the trial court's injunction directing the Comptroller to desist and refrain from implementing and enforcing the "new" rule unless and until the Comptroller properly enacted the rule pursuant to APA procedures, or "until final judgment of the trial court."²⁷

The Executive Director's attempted distinctions of *El Paso Hospital*, *Texas Mutual*, and *WBD Oil* are inappropriate. In *El Paso Hospital* an agency interpretive rule contradicted a previously adopted notice and comment rule. Similarly, the Executive Director's negative use determinations are inconsistent with Tax Code §11.31 and 30 TAC §§17.4 and 17.17. In *Texas Mutual* the court did not, as the Executive Director suggests, hold that if the statement made in the staff report "was a statement that fell within the definition of a rule," that somehow it could avoid scrutiny as a rule because "it is well established that not every administrative pronouncement is a rule within the meaning of the APA."²⁸ The Court did quote language from *Combs*, "that not every administrative pronouncement is a rule within the meaning of the APA."²⁹ However, those prior cases did not involve agency statements that met the four-point test set out above.

In addition, the court statements misconstrued by the Executive Director were numerous. The plaintiff in *Texas Mutual* sought a declaratory judgment regarding the interpretation of a substantive rule. The Court of Appeals reversed the trial court judgment and upheld the agency interpretation of the rule that had been adopted pursuant to notice and comment procedure.

Similarly, the Executive Director's reference to *WBD Oil* is most unusual. The Executive Director recognizes the "field rules" at issue in *WBD* were created through a contested case hearing. Under the APA parties to a contested case hearing are entitled to notice of an adjudicative type hearing, presentation of evidence, cross examination of witnesses under oath, and issuance of a final order confirming findings of fact and conclusions of law.³⁰ No such procedure was followed prior to the Executive Director's issuance of the unsupported and undocumented statement of July 10, 2012, and all of *WBD*'s interesting statements about the differences between agency adjudications in contested cases and agency rule-makings are completely irrelevant since Applicant have not been afforded either fair procedure in this matter.³¹

²⁷ *Id.* at 719.

²⁸ Executive Director's Response Brief at 16.

²⁹ *Texas Mutual Insurance Co. v Vista Community Medical Center, LLP*, 275 S.W.3d 538, 555 (Tex.App.—Austin 2008).

³⁰ TEX GOV'T CODE §§2001.051, 2001.085, 2001.087, 2001.088, and 2001.141.

³¹ See *Railroad Commission of Texas v. WBD Oil & Gas Co.*, 104 S.W.3d 69 (Tex. 2003).

V. The Record Supports a Positive Use Determination and Clearly Contradicts a Negative Use Determination

A. HRSGs Qualify as Pollution Control Property Under §11.31

The Applicant's HRSGs can be defined as pollution control property based on the prevention of NOx emissions from natural gas use efficiencies. Under Tax Code §11.31(a), "[a] person is entitled to an exemption from taxation of all or part of real and personal property that the person owns and that is used wholly or partly as a facility, device, or method for the control of air, water, or land pollution." (emphasis added). The statute defines "a facility, device, or method for the control of air, water, or land pollution" as:

"[a] structure, building, installation excavation, machinery, equipment or device, and any attachment or addition to or reconstruction, replacement or improvement of that property, that is used, constructed, acquired, or installed wholly or partly to meet or exceed rules or regulations adopted by any environmental protection agency of the United States, this state, or a political subdivision of this state for the prevention, monitoring, control, or reduction of air, water, or land pollution."

In fact, the Executive Director conducted a technical review of the 25 Group I HRSG applications and on May 1, 2008, issued positive use determinations for these applications stating, "[t]his equipment is considered to be pollution control equipment and was installed to meet or exceed federal or state regulations."

B. Environmental Benefit

1. Recognition of Emission Avoidance as Pollution Control

The Executive Director and the Appraisal District argue that HRSGs are not used in any way to prevent, monitor, or control air, water, or land pollution. Specifically, the Executive Director states that a "HRSG does not remove air contaminants in the manner that a traditional pollution control device does" and that it has never recognized emission avoidance as pollution control.³² In the Executive Director's view, a piece of equipment provides an environmental benefit only if it is used to remove air contaminants.

However, the statute provides that pollution control property is used "for the prevention, monitoring, control, or reduction of air, water, or land pollution."³³ It is true that HRSGs do not actually remove pollutants from a power plant's exhaust stream. The HRSGs pollution control value is its increased thermal efficiency, which when compared to a traditional simple-cycle turbine unit, reduces the fuel needs for the same power outputs, while resulting in lower air emissions. It is important to note that the lower fuel consumption associated with increased fuel conversion efficiency not only reduces criteria pollutants such as NOx, but also reduces emissions of hazardous air pollutants, as well as carbon dioxide, which EPA is currently in the process of regulating under the Federal Clean Air Act.

³² Executive Director Response Brief at 8.

³³ TEX. TAX CODE §11.31(b).

The U.S. Environmental Protection Agency (“EPA”) recognizes the use of energy efficiency as a measure of pollution control and/or pollution prevention³⁴ and at least one other state using this method as part of their tax exemption programs.³⁵ Furthermore, many of the New Source Performance Standards (“NSPS”), which the TCEQ has incorporated into its own rules, use efficiency as a measure of compliance. If the installation of a HRSG allows a facility to meet its federal and state required emission performance standard, then by definition, the HRSG would be equipment that controls emissions.

2. Empirical Data Demonstrating Emissions Reductions Due to Use of HRSG

The Executive Director argues that the Applicant’s avoided emission argument is inadequate because it requires a comparison between a combined-cycle unit and a hypothetical alternative unit. The Executive Director goes on to state that “No Applicant has provided sufficient information as to why these hypothetical comparisons should be done, not have they provided why the single-cycle plant or boiler are appropriate comparisons.”³⁶

As a threshold matter, as discussed above, the clear language and structure of §11.31(k-m) assume the pollution control benefits of HRSGs. So, the information the Executive Director complains about being missing is simply not required.³⁷

Moreover, Applicant’s appeal brief in Attachment I includes the very information the Executive Director seems to be looking for. That Attachment contains monitoring data from the Barney Davis Power Plant during both pre- and post- repowering of that plant. This data demonstrates the assumptions regarding the air emissions reductions per pound of fossil fuel use. As set out in the attached affidavit,³⁸ Robert Roland, Manager, Regional Engineering, at the Cottonwood Energy Center states that based on his industry experience and knowledge, the emission reduction assumptions used in the avoided emissions methodology, as described in Cottonwood’s application, comply with the capabilities and historical performance of the Cottonwood plant.

The Executive Director does, however, acknowledge that HB 3732 provided for an expedited review of applications for equipment listed in §11.31(k) that exempted applicants from submitting information regarding the anticipated environmental benefit. The fact that the Legislature removed the requirement to submit information regarding the environmental benefit for those applications under §11.31(k) is of critical importance. Not only did the Legislature consider the items listed in §11.31(k) as equipment “for the control of air, water, or land

³⁴ See Memorandum from Brian McLean, Director of Office of Atmospheric Programs and Stephen Page, Director of Office of Air Quality Planning and Standards, *Guidance on SIP Credits for Emission Reductions from Electric-Sector Energy Efficiency and Renewable Energy Measures*, August 5, 2004, stating, “Energy efficiency ... inherently prevent[s] pollution from occurring.” (See Attachment 2).

³⁵ See Ohio Revised Code, Section 5707.20(J)-(K) (“Thermal Efficiency Improvement” and “Thermal Efficiency Improvement Facility”), which qualifies HRSGs as an “Exempt Facility” under § 5707.20(E), which is eligible for an “exempt facility certificate” under § 5707.21. (See Attachment 3).

³⁶ Executive Director Response Brief at 8

³⁷ See 11.31(m) indicating that applicants for items listed in §11.31(k) are not required to submit environmental benefit information.

³⁸ Affidavit of Robert Roland (Attachment 4).

pollution,” but it determined that no information was required regarding the environmental benefit of these items because it has already determined that these items provided an environmental benefit.

The Executive Director states that the removal of the requirement to submit environmental benefit information puts the Executive Director in a precarious position in determining whether an environmental benefit exists. Actually, in removing this requirement the Legislature acknowledged that an environmental benefit exists and that the Executive Director did not have to review this information for these particular applications. Instead of causing a precarious position for the Executive Director, it merely streamlined the application process for those applications in which an environmental benefit was known to exist.

The Executive Director then argues that the Legislature cannot extend a tax exemption beyond what is provided in the Constitution; and because the Constitution requires that property eligible for a pollution control property tax exemption must provide an environmental benefit, this requirement cannot be waived. First, it is not within the Executive Director’s statutory charge or authority to determine whether the Legislature’s actions comply with the Constitution. Second, the requirement that property eligible for a pollution control property tax exemption must provide an environmental benefit has not been waived; the Legislature has already determined that equipment listed in §11.31(k) provides an environmental benefit. The Legislature has merely left it to the TCEQ’s discretion to determine what the percentage of a positive use determination should be.

C. Method of Pollution Control – TCEQ Precedent, the Attorney General’s Interpretation, and the Legislature’s Directive

As previously noted, the Executive Director argues that it has never recognized emissions avoidance as pollution control. This statement is not only patently untrue, but belies the fact that the Legislature has already determined that HRSGs do control pollution. Similarly, the Appraisal District argues that HRSGs are “a major component of production...[and are] installed to produce more electricity or steam to sell and not to reduce pollution.” Interestingly, the Appraisal District states that “[i]f a HRSG is added just to improve efficiency, the HRSG may qualify for an exemption.”

As noted in the Executive Director’s response brief, on May 1, 2008, the Executive Director issued 100% positive use determinations for 25 HRSGs many of which cited emissions avoidance as the pollution control provided by HRSGs. While six of those applications were appealed and are now the subject of an administrative appeal, the remaining 19 applications have been issued a final 100% positive used determination based on emissions avoidance. The Executive Director has since stated that all of the 100% positive use determinations for HRSGs were made in error, but this does not change the fact that the Executive Director and the Commission has previously recognized emissions avoidance as pollution control.

Furthermore, the TCEQ recently adopted a Permit By Rule (PBR) for Natural Gas-Fired Combined Heat and Power Units.³⁹ The preamble to the adoption of the Combined Heat and

³⁹ 30 TAC §106.513; 37 Tex.Reg. 6037-6049, August 10, 2012.

Power (CHP) PBR, the TCEQ states, “The Commission acknowledges the benefits and advantages of CHP as a means of providing efficient, reliable, and clean energy.” As part of that PBR, TCEQ specifically provided that the emission limits for stationary natural gas engines would be measured in terms of air contaminant emissions per unit of total energy output.⁴⁰ HRSGs are recognized as a typical industrial CHP application. The fact that the TCEQ recognizes the pollution control benefits of this type of equipment in its permitting program should be given weight when evaluating the Executive Director’s arguments in this case that similar equipment does not have pollution control benefits.

Furthermore, even if the Executive Director had never actually recognized emissions avoidance as pollution control, that does not change the fact that HRSGs are specifically listed in §11.31(k) as equipment “for the control of air, water, or land pollution.”

The Attorney General’s Office, in response to prior TCEQ requests for guidance regarding Section 11.31 has made it clear that equipment can serve as a method of pollution control, while also serving as production equipment. The Executive Director summarily dismisses Applicant’s reliance on this opinion by stating, “Applicants misinterpret Attorney General Opinion JC-0372.” Merely stating that the Applicant has misinterpreted the Attorney General opinion does not actually make it so. Furthermore, the arguments made by the Executive Director and the Appraisal District that §11.31 only applies to “traditional” or “add-on” pollution control devices are directly refuted by the Attorney General’s opinion.

Texas Attorney General Opinion JC-0372 (2001) expressly opined to the Chair of the Texas Natural Resource Conservation Commission that “methods of production” can and do qualify as exempt pollution control property:

“Section 11.31 is broadly written, and we believe its plain meaning is clear. It embraces any property, real or personal, “that is used wholly or partly as a facility, device, or method for the control of air, water or land pollution. . . .” (emphasis added).

“Next, we consider whether section 11.31 excludes from its scope pollution-reducing production equipment. Significantly, the statute applies to property used “wholly or partly” for pollution control. See id. §11.31(a). To qualify for the exemption, property must be used “wholly or partly” to meet or exceed environmental rules. See id. §11.31(b). The term “wholly” clearly refers to property that is used only for pollution control, such as an add-on device. See Merriam Webster’s Collegiate Dictionary 1351 (10th Executive Director. 1993) (defining “wholly” to mean “to the full or entire extent: ... to the exclusion of other things”). The term “partly,” however, embraces property that has only some pollution-control use. See id. at 848 (defining “partly” to mean “in some measure or degree”). This broad formulation clearly embraces more than just add-on devices. Furthermore, that statute clearly embraces not only “facilities” and “devices” but also “methods” that prevent, monitor, control, or reduce pollution. “Methods” is an extremely broad term that clearly embraces means of production

⁴⁰ 30 TAC §106.513(d).

designed, at least in part, to reduce pollution. See *id.* at 732 (defining “method” to include “a way, technique, or process of or for doing something”).⁴¹

This opinion refutes the arguments made by the Executive Director and the Appraisal District that production equipment cannot also serve to reduce pollution. It also fundamentally disproves the Executive Director and Appraisal District arguments that only “traditional” pollution control equipment or equipment that is “added” to a facility can qualify as pollution control property. The HRSGs are clearly used as engineering methods to comply with environmental laws and to control pollution and therefore, qualify for exemption under any valid rule or convention of statutory construction.

Significant reliance is placed by the Executive Director and OPIC on the *Mont Belvieu* opinion. Yet, there are three fundamental differences between the current appeal and the *Mont Belvieu* situation that make it clear that it does not support the Executive Director’s position and, in fact, conflicts with it.

To begin with, the procedural posture of the appeal was fundamentally different in *Mont Belvieu*. As the *Mont Belvieu* Court emphasized, *Mont Belvieu* sought “a 100% positive use determination” for its brine storage pond system” and it “opted to stand or fall based on a claimed entitlement to a 100% positive use determination. . .”⁴² That is a very different situation than the current appeal where the question is not whether 100% is appropriate, but whether 0% is appropriate.

The distinct procedural posture leads to two different burdens of proof. All the TCEQ needed to demonstrate in *Mont Belvieu* is whether there was any productive value and then it could contend that 100% was inappropriate. The Court emphasized that *Mont Belvieu* acknowledged that its brine pond system was only “part” of the process by which it produces gas storage services for customers and that “subsections within section 11.31 contemplate – indeed require – that if property is not ‘wholly’ used for pollution control, TCEQ will limit any positive use determination to the proportion of the property that is.”⁴³

This is much different than the pending appeal where the TCEQ is claiming no pollution control benefit and all production benefit – the reverse of the *Mont Belvieu* situation. The TCEQ can no more dismiss the pollution control benefits of the HRSGs than *Mont Belvieu* could dismiss the productive value of its brine ponds.

A third distinguishing factor between *Mont Belvieu* and the current appeal is that the brine ponds in that case are not included on the 11.31(k) list like the HRSGs are. Therefore, the legislatively-established pollution control benefits of the equipment in question were not as clearly demonstrated as they are for HRSGs in the current appeal.

⁴¹ Texas Attorney General Opinion JC-0372 (2001) (emphasis added).

⁴² *Mont Belvieu Caverns, LLC. Tex. Comm’n on Env’tl. Quality*, No. 03-11-00442 CV, 2012 WL 3155763 at 10 (Tex. App.—Austin 2012).

⁴³ *Id.* at 15.

Therefore, read correctly, *Mont Belvieu* does not support the Executive Director's position. In fact, it actually contradicts it because it makes clear that the TCEQ is to distinguish the proportion of the property at issue that is used to control, monitor, prevent or reduce pollution from the proportion of the property that is used to produce goods or services and the proportion that is used to control pollution qualifies for the tax exemption.⁴⁴ As discussed at length above and below, this proposition is clearly established by the statute and recognized in Attorney General Opinion JC-0372.

As discussed at length above in Section III, the Legislature's directive to TCEQ is set out very clearly in 11.31(k-m). The debate about whether production equipment can also be pollution control equipment is abruptly ended by the basic fact that many items of production-related equipment are included on the 11.31(k) list which the statute expressly recognizes as pollution control equipment. There is plenty of additional evidenced discussed above and below to support the clear statutory language, but nobody states it more clearly than the author of HB 3732 when he stated:

One of the goals of the legislation this session was to ensure that TCEQ had the authority and direction from the legislature to recognize that pollution control benefits can be derived from the manner in which fuel is prepared and used, and from increasing the efficiency of certain facilities. By doing so, the amount of fuel needed and the total amount of pollution emitted can be reduced. I did not intend, nor do I support, an interpretation of anything in HB 3732 to prevent electric generating facilities from receiving exemptions for equipment simply because they also derive profit from a given piece of equipment or process. If it reduces pollution, it qualifies.(emphasis added).⁴⁵

Although Appellant would not attempt to argue that a letter from an individual member of the legislature is controlling authority regarding legislative intent, the views of the author of the statute being interpreted are certainly worth considering. This is especially true in this case given that the Executive Director makes extensive legislative intent arguments that are in direct conflict with the written views of the bill's author.

D. HRSGs are Used to Meet/Exceed New Source Performance Standards (NSPS)

The Executive Director includes a number of arguments in its Response Brief that attempt to cast doubt on whether HRSGs are specifically required to be installed by an environmental regulation. To begin with, the test is not that an environmental regulation specifically calls for a specific piece of equipment. Rather, the Constitutional and statutory test is whether the equipment is "used, constructed, acquired, or installed wholly or partly to meet or exceed [environmental] rules or regulations." There are two phrases that are critical in that test: (1) "wholly or partly" and (2) "meet or exceed."

⁴⁴ *Id.* at 12.

⁴⁵ Letter from Rep. Rick Hardcastle to Grace Montgomery, Deputy Director of Administrative Services at the TCEQ, August 1, 2007 (See Attachment 5) (emphasis added).

By including the phrase “wholly or partly,” the Constitutional Amendment and implementing legislation make it clear that the equipment need not have been installed due solely to the existence of an environmental regulation. Moreover, by including the phrase “meet or exceed,” the Constitutional Amendment and legislation made it clear that the equipment in question may be more than the regulation calls for.

The Executive Director argues different things for different regulations that have applicability to the power plants impacted by the pending appeals, but the general basis of the Executive Director’s argument is that there is not a sufficient nexus between the cited environmental regulations and the pollution control claimed by the Applicant.

As an initial matter, it should not go unnoticed that the Executive Director previously thought that the regulatory citation of the same or similar provisions as relied upon in the pending appeals were relied upon by the 25 applications for which the Executive Director previously issued 100% positive use determination.

It is also important to note that none of the July 10, 2012 Negative Use determinations claim that the referenced environmental regulation was inapplicable or insufficient. Instead, the Executive Director waited until it filed its response brief to this appeal to provide copies of previously prepared “Application Review Summaries” which summarily state that “the cited regulations do not require the installation of a heat recovery steam generator or steam turbine.”⁴⁶ While the lack of any legal or technical evaluation is striking, what is even more egregious is the fact that the Executive Director’s Application Review Summary indicates that the Executive Director believes that an application for a positive use determination must cite to an environmental regulation that specifically requires the installation of a particular piece of equipment.

As noted above, the controlling statute says nothing of the sort. There is absolutely no requirement that before equipment is eligible for a tax exemption as pollution control property, an environmental regulation must specifically require that a specific piece of equipment be installed. Thus, the Executive Director’s “technical evaluation” completely misconstrues the statutory requirements and should be granted little weight.

Instead, the Commission must simply ask whether any environmental regulation exists that Applicant is meeting or exceeding through the use of the equipment for which an application for a use determination was submitted. That is the case here.

The Executive Director concedes that 40 CFR Part 60, Subpart KKKK includes an output-based emission limit on NO_x that applies to an entire power plant. Rather than taking the logical step of acknowledging that HRSGs assist and, in fact, are essential to achieving the Subpart KKKK emission limit, the Executive Director makes a seemingly illogical leap to the conclusion that Subpart KKKK cannot be the qualifying environmental regulation because that Subpart would not apply until “after an applicant affirmatively decides to build a combined cycle plant.” Whatever that statement is intended to convey, it does not accurately reflect the regulatory framework.

⁴⁶ Executive Director’s Application Review Summary for the Cottonwood Energy Center (Attachment 1).

The “Applicability” section of 40 CFR Part 60, Subpart KKKK states “if you are the owner or operator of a stationary combustion turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10MBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005,” your turbine is subject to this subpart.”⁴⁷ So, it is clear that this regulation applies to “stationary combustion turbines” without reference to what type of equipment is installed in conjunction with those turbines.

Therefore, 40 CFR Part 60, Subpart KKKK clearly and unambiguously creates an output-based NOx emission limit that HRSGs are “used, constructed, acquired, or installed wholly or partly to meet or exceed.” The only reason NRG Cottonwood is not directly governed by Subpart KKKK is that it was not “constructed, modified, or reconstructed after February 18, 2005.” However, its equipment serves the same purpose. It would be inequitable and illogical for the TCEQ to apply the statute to say that NRG Cottonwood’s HRSGs are not eligible while nearly identical and equally efficient HRSGs at a Subpart KKKK facility would be eligible.

The bottom line is that an output-based emission limit exists and HRSGs help to meet or exceed those limits. To say that the equipment cannot be exempt, in whole or in part, because it is not specifically designated by regulation is a misreading of the statute. And to implement the statute in a way that would grant an exemption to KKKK facilities but reject facilities that have not yet become subject to that provision would be inequitable and ignore the statutory criteria that affords the pollution control exemption not just to those who meet regulations, but those that exceed what is required of them as well.

VI. Equal and Uniform Taxation

The Executive Director’s and OPIC’s Responses state that the TCEQ’s prior HRSG exemption authorizations were in error; that the TCEQ is at liberty to correct its prior interpretation; and that any resulting difference in ad valorem tax impact is not in violation of the Texas Constitution’s equal and uniform tax mandate. As a threshold matter, the argument requires that the prior interpretations were incorrect, which they were not. It is next necessary to walk through the myriad of cases cited in the Response Briefs to better understand what those cases stand for and what they do not and how they in no way support the Negative Use determinations in this case.

The Executive Director cites *1756, Inc. vs. Attorney General*⁴⁸ for the proposition that “Agencies may, indeed are expected to, alter and refine their interpretation of what fills such gaps [in statutes] through the exercise of their technical expertise . . .” *1756, Inc.* is based entirely on federal administrative law, not Texas, but more importantly, neither the case nor the quote supports the Executive Director’s position in this case. *1756, Inc.* argued that an Immigration and Naturalization Service (“INS”) Rule⁴⁹ was promulgated improperly. After a thorough analysis of legislative history supporting the INS’s rule, and expressly finding that “The meaning of the [underlying federal] statute *remains ambiguous* after the ‘traditional tools of statutory

⁴⁷ 40 CFR §60.4305.

⁴⁸ *1756, Inc. vs. Attorney General of the United States*, 745 F. Supp. 9 (D.Ct. D.C. 1990).

⁴⁹ 8 C.F.R. 214.(l)(1)(ii)(D).

construction' have been applied," the 1756 Court upheld the agency's formally adopted rule.⁵⁰ The TCEQ has chosen not to comply with the Texas Administrative Procedures Act with respect to its new position on HRSGs. Legislative history does not support the agency's new position, and §11.31 is not ambiguous as applied to the facts of this case.

Moreover, 1756 requires that an agency bears "the burden of rationally explaining its departure from its previous interpretation", which the Executive Director has not even made an attempt to do in this case. Finally, while the Executive Director champions federal law seeming to allow inconsistent agency action, Texas law is to the contrary.

In *TGS-NOPEC Geophysical Company vs. Combs*, the Supreme Court invalidated the Comptroller's interpretation of the applicable statute, noting that her "own administrative interpretation of the sourcing statute further contradicts her argument here," "conflicts with her rule regarding the licensing of software," and was "inconsistent."⁵¹ The court went on to say that "an agency's construction of a statute may be considered only if it is reasonable and not inconsistent with the statute."⁵² The Executive Director's ruling in this case is neither.

The Executive Director cites *Flores vs. Employees Retirement System of Texas* for the proposition that "[a]n agency is not bound to follow its decisions in *contested cases* in the same way that a court is bound by precedent,"⁵³ provided that the agency gives a reasonable explanation for apparent inconsistency in agency interpretation. The *Flores* case involved allegations by a state employee that the Employee Retirement System of Texas (i) failed to follow its own prior decisions in denying her certain disability benefits and (ii) "applied a new policy in the course of her contested case hearing without providing notice before the hearing."⁵⁴ The Austin Court of Appeals agreed with Ms. Flores:

"We hold that the Board acted arbitrarily and capriciously by: deciding this appeal before it arrived at its findings of fact and conclusions of law, reweighing adjudicative facts, changing findings of fact and conclusions of law for unauthorized and unexplained reasons, making findings of fact and conclusions of law without adequate support in the record, and failing to give notice before the hearing of its intention not to follow previous decisions and failing to adequately explain the reasoning for its change in position."⁵⁵

The *Flores* case fairly stands for the proposition that agencies may not internally arrive at a new policy during the course of a contested case and apply it to change the outcome of the case, which is what the Executive Director is attempting to do, without providing a reasonable explanation nor the inconsistency. The *Flores* case supports the Applicant's position.

⁵⁰ 1756 Inc., 745 F. Supp. at p. 15.

⁵¹ *TGS-NOPEC Geophysical Company vs. Combs*, 340 S.W.3d 432, 443 (Tex. 2011).

⁵² *Id.*

⁵³ *Flores vs. Employees Retirement System of Texas*, 74 S.W.3d 532, 544 (Tex. App.—Austin 2002) (emphasis added).

⁵⁴ *Flores vs. Employees Retirement System of Texas*, 74 S.W.3d 532 at 538.

⁵⁵ *Id.* at 545.

The actions of the Executive Director in this case are the essence of arbitrary and capricious agency action and “arbitrary action of an administrative action cannot stand”.⁵⁶ When those actions are compared to those of the agency in *Flores*, and the companion case of *Langford v. Employees Retirement System*, “serious due process concerns” are raised.⁵⁷

The Executive Director also cites the Austin Court of Appeals decision in *First American Title vs. Strayhorn*⁵⁸ for the position that an agency may change its interpretation of a statutory tax scheme as long as the new interpretation does not contradict the statute or a formally promulgated rule. In *First American*, the Texas Comptroller formally promulgated a new version of its Rule 3.831 that impacted the way foreign insurers were required to remit the Texas retaliatory tax. The Austin Court Appeals expressly found that the new rule did not “impose any additional restrictions, conditions, or burdens that [were] inconsistent with the [applicable] statute.”⁵⁹ The facts in *First American* are not consistent with this case. In the current case the Executive Director’s proposed policy change has not been promulgated as a formal rule pursuant to the requirements of the Texas Administrative Procedures Act. In addition, the policy change is away from a position that is consistent with §11.31 of the Texas Tax Code to one that is inconsistent⁶⁰ with it. The *First American* case supports the Applicant’s position given the facts in the current case.

The Executive Director cites *Grocer’s Supply Co. vs. Sharp*⁶¹ for the proposition that an agency can change its interpretation of a statute because the prior interpretation had not been adopted in a formal rule. The *Grocer Supply* Court stated the issue in the case as follows:

“What is at issue in this case, then, is the Comptroller’s substitution of one interpretation of his rule for another, not the Comptroller’s contravention of one of his rules promulgated under the notice-and-comment procedures of the Administrative Procedures Act.”⁶²

The *Grocer Supply* Court found that the Texas Comptroller had (i) correctly enforced one refund policy from 1965 through sometime in 1984, (ii) incorrectly changed the refund policy to one inconsistent with Texas Supreme Court precedent from 1984 through 1993; and (iii) from 1992 to 1997 enforced the new policy without promulgating a new rule on the issue. On these facts the Court found that the Comptroller should be allowed to correct and enforce his policy interpretation.

⁵⁶ *Lewis v. Metropolitan Savings and Loan Association*, 550 S.W.2d 11, 16 (Tex. 1977).

⁵⁷ *Langford v. Employees Retirement System*, 73 S.W.3d 560, 566 (Tex. App. – Austin 2002, pet. denied).

⁵⁸ *First American Title vs. Strayhorn*, 169 S.W.3d 298 (Tex. App.—Austin 2005), *aff’d by First American Title Ins. Co. vs. Combs*, 258 S.W. 627 (Tex. 2008).

⁵⁹ *First American Title Ins. Co. vs. Strayhorn*, 169 S.W.3d at 310.

⁶⁰ Page 15 of the Executive Director’s brief cites the following quote: “[Taxpayers] do not acquire a right to pay less in taxes . . . because a tax policy was incorrectly implemented” as stemming from a page “642,” which would be from the Dissent in the Texas Supreme Court’s *First American* decision. For clarification and future reference, the quote comes from the Austin Court of Appeals *First American* decision at page 313.

⁶¹ *Grocers Supply Co. v. Sharp*, 978 S.W.2d 638 (Tex. App.—Austin 1998, pet. denied).

⁶² *Id.* at 642.

The facts in *Grocer Supply* are not precedent for the current case. In this case the TCEQ had previously interpreted and enforced §11.31 according to its plain meaning. The Executive Director is now attempting to change that interpretation, inconsistent with the plain meaning of the statute and without complying with the Texas Administrative Procedures Act. *Grocers Supply* no longer has any precedential value on the point that an agency can change a policy interpretation of general applicability without promulgating a rule, because it is in direct opposition to the more recent opinion of *Combs vs. Entertainment Publications*,⁶³ which definitively holds that a change in a policy interpretation meeting the standards of a rule must to be promulgated under the Texas Administrative Procedures Act. Further, the conclusion of the *Grocer Supply* Court offers some insight into agency attempts to avoid established rulemaking procedures:

“In resolving the claims of Grocers Supply in favor of the Comptroller, we should not be construed as endorsing or approving the manner in which the Comptroller has dealt with exemption requests such as that of Grocers Supply. The record before us does not reflect why the Comptroller from time to time varied his position, particularly in light of the supreme court's straightforward pronouncement of legislative intent. These actions do not foster the confidence and certainty in government upon which the people of this State are entitled to rely.”⁶⁴

None of the cases cited by the Executive Director or OPIC in their equal and uniform tax arguments involve property taxes. Instead, they deal with changes: (a) from an agency position found by a court to be inconsistent with a statute or binding Texas Supreme Court precedent (b) to an agency interpretation found by the court to be consistent with a statute or other binding precedent. The exact opposite pattern is in play here where there is a proposed agency change from a position consistent with a statutory directive to one patently inconsistent with it. If sustained, the divergent property tax impact violates equal and uniform taxation.

The Texas Constitution's equal and uniform tax⁶⁵ mandate requires that all persons falling within the same class be taxed alike.⁶⁶ We are fortunate to have a contemporaneous description of the history and scope of the equal and uniform tax mandate as reported by the Texas Supreme Court.⁶⁷ In *In Re Nestle*, the Court reviewed statutory distinctions drawn between different taxpayers under the Texas franchise tax and confirmed that the Texas legislature may make distinctions between taxpayers, but that such distinction must be supported by more than mere rational classification.⁶⁸ And, while the Texas Legislature has broad authority to “pursue policy goals through tax legislation”⁶⁹ it must do so only with respect to “goals related to the taxation”

⁶³ *Combs v. Entertainment Publications, Inc.*, 292 S.W.3d 712 (Tex. App.—Austin 2009, *no pet.*).

⁶⁴ *Grocers Supply*, 978 S.W.2d at 645.

⁶⁵ See TEX. CONST. art. I, § 3; U.S. CONST. amend. XIV, § 1.

⁶⁶ *Id.*; citing *Sharp v. Caterpillar, Inc.*, 932 S.W.2d 230, 240 (Tex. App.—Austin 1996, writ denied) (citing *Hurt v. Cooper*, 110 S.W.2d 896, 901 (Tex. 1937)).

⁶⁷ *In Re Nestle USA, Inc.*, Cause No. 12-0518 (Tex. Oct. 19, 2012).

⁶⁸ *Id.* at 19.

⁶⁹ *Id.* at 20.

and “must attempt to group similar things and differentiate dissimilar things.”⁷⁰ The *Nestle* decision makes it clear that the equal and uniform tax mandate is more strict with respect to property taxes: “[t]he Legislature’s authority to make classifications in levying occupation, use and sales taxes unquestionably is broader than its authority to do so with respect to ad valorem taxes.”

If the Executive Director could sustain its incorrect new interpretation of §11.31, then it would violate the equal and uniform tax mandate as set forth in the *Nestle* decision, because there is no reasonable or even rational distinction between HRSGs the TCEQ has authorized 100% property tax exemptions for and the HRSGs the Executive Director now proposes to issue negative use determinations.

In *Calvert v. McLemore*, the Texas Supreme Court reasoned as follows:

“The courts can only interfere . . . when it is made clearly to appear that an attempted classification has *no reasonable basis* in the nature of the businesses classified, and that the law operates *unequally* upon *subjects between which there is no real difference* to justify the separate treatment of them undertaken by the Legislature The statute is plainly a revenue measure. It does not relate in any way to the public safety, morals, convenience or general welfare [A]nyone who exhibits a motion picture or play at a place other than a fixed and regularly established motion picture theater must pay a tax. Another person who exhibits the same picture or play to a similar audience in an adjoining building of the same construction escapes payment of the tax merely because he regularly shows motion pictures in that building. The discrimination is too plain to admit of argument, and we agree with the trial court that [the law] is unconstitutional.”⁷¹

Applying *McLemore*’s analysis to this case, there is no reasonable or rational basis for the discrimination proposed. The Executive Director’s position operates unequally upon subjects between which there is no real difference to justify separate treatment by the legislature. The distinction does not relate in any way to the public safety, morals, convenience or general welfare, and are void under the equal and uniform tax provisions of the Texas Constitution.

VII. Conclusion

The arguments made by the Executive Director, OPIC, and the Appraisal District are based on misapplications of the controlling statute, policy concerns outside of the Agency’s purview, and inadequate technical review. Texas Tax Code §11.31 provides a straightforward roadmap for how the TCEQ must process, evaluate, and resolve applications for use determinations. This process expressly contemplates that the pollution control aspects of “devices and methods” may also have productive value and instructs the TCEQ, not to dismiss applications with negative use determinations, but instead to acknowledge the legislatively-established pollution control benefits of items on the 11.31(k) list and then develop a full or partial positive use determination

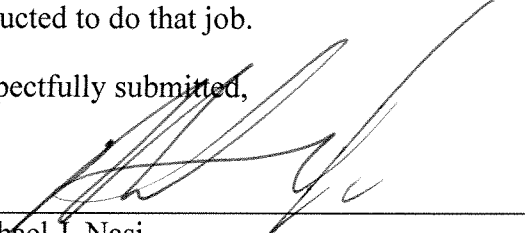
⁷⁰ *Id.*

⁷¹ *Calvert v. McLemore*, 358 S.W.2d at 552 (Tex. 1962) (emphasis added).

after factoring in the concurrent pollution control and production benefits of the equipment in question.

In the instant case, the Executive Director and the General Counsel did not follow the procedural requirements for processing these applications as laid out in §11.31 and failed to apply a consistent approach for all similarly situated applications. Again, the question on appeal is not whether 100% or another specific percentage is appropriate - the Commissioners need only evaluate whether any percentage above zero is appropriate and, if so, a remand is required. As set forth fully above, the express language of the statute demands that a percentage above zero be recognized so the only legally valid outcome is for the Commission to put things back on the right track by remanding the applications to the Executive Director to determine what percentage of a positive use determination is appropriate. The Executive Director has the staff expertise and tools to do this job. All that we ask that they be instructed to do that job.

Respectfully submitted,



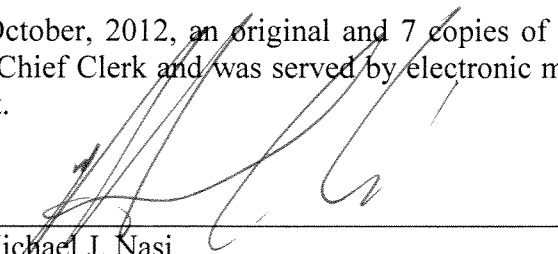
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ATTORNEYS FOR
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CERTIFICATE OF SERVICE

I hereby certify that on the 30th day of October, 2012, an original and 7 copies of the foregoing was filed with the TCEQ Office of the Chief Clerk and was served by electronic mail or U.S. First Class Mail to the attached mailing list.



Michael J. Nasi

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Attachment 1

Application Review Summary

Application Number: 15505
Company: Cottonwood Energy Company, LP
Facility: Cottonwood Energy Center
County: Newton
Tier: III
Estimated Cost of Property: \$26,043,320.00
Project Reviewer: Ronald Hatlett

Description of Property and Environmental Benefit

This project installed a heat recovery steam generator and dedicated ancillary systems. The equipment allows the facility to generate more electricity per unit of fuel burned. However, the equipment does not result in an actual reduction of emissions at the facility.

Rule Citation(s)

40 CFR 60.44Da: Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978; Standard for nitrogen oxides (NOX). This regulation does not require the installation of heat recovery steam generators. The applicant states that the use of this equipment allows the facility to meet Best Available Control Technology emission limitations established in their Federal Operating Permit. Neither of these are appropriate citations.

Final Determination

A negative determination for the heat recovery steam generator and its dedicated ancillary equipment are used for production not pollution control and therefore not eligible for tax relief. Further, the cited regulations do not require installation of the heat recovery steam generator.

Administrative Review

Administrative Review Chronology

Received Date: 07/05/2011

Date Application Was Declared Administratively Complete: 07/13/2011

Fee Information

Application Fee Paid: Yes

Fee Receipt Number: R128598

Does Applicant Have Past Due Fees: No

Technical Review

Technical Review Chronology

Technical Review Start Date: 11/14/2011

Technical Review Completion Date: 07/05/2012

Ronald Hatlett 7/5/12
Project Reviewer Date

Spencer 7/9
Work Leader Date

Application Review Summary

Application Number: 16412
Company: Cottonwood Energy Compnay, LP
Facility: Cottonwood Energy Center
County: Newton
Tier: III
Estimated Cost of Property: \$60,584,465.00
Project Reviewer: Ronald Hatlett

Description of Property

Unit 2 heat recovery steam generator and dedicated ancillary system.

Tier III Partial Percentage: 42.99%

Environmental Benefit

Use of this equipment improves the thermal efficiency of the plant.

Rule Citation(s)

The applicant cites 40 Code of Federal Regulations (CFR) §60.44Da(a) – Standard for nitrogen oxides (NOx) for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978. This citation establishes NOx emission standards for certain power plants. In addition, the applicant cites 30 Texas Administrative Code §122.143(4). This citation requires the permit holder to comply with all terms and conditions codified in the permit. Neither citation requires the installation of heat recovery steam generators and dedicated ancillary systems.

Final Determination

A negative determination for the heat recovery steam generator and associated dedicated ancillary equipment.

Administrative Review

Administrative Review Chronology

Application Received: 12/02/11

Application Administrative Review Start: 04/19/12

Application Administrative Review Complete: 04/19/12

Fee Information

Application Fee Paid: \$2,500.00

Fee Receipt Number(s):

R211805

Does Applicant Have Past Due Fees: No.

Technical Review

Technical Review Chronology

Application Technical Review Started: 07/06/12

Application Technical Review Complete: 07/06/12

Emale Hat DA 7/6/12
Project Reviewer Date

gord 7/9
Work Leader Date

Application Review Summary

Application Number: 16411
Company: Cottonwood Energy Compnay, LP
Facility: Cottonwood Energy Center
County: Newton
Tier: III
Estimated Cost of Property: \$26,043,320.00
Project Reviewer: Ronald Hatlett

Description of Property

Unit 3 heat recovery steam generator and dedicated ancillary system.

Tier III Partial Percentage: 42.99%

Environmental Benefit

Use of this equipment improves the thermal efficiency of the plant.

Rule Citation(s)

The applicant cites 40 Code of Federal Regulations (CFR) §60.44Da(a) – Standard for nitrogen oxides (NOx) for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978. This citation establishes NOx emission standards for certain power plants. In addition, the applicant cites 30 Texas Administrative Code §122.143(4). This citation requires the permit holder to comply with all terms and conditions codified in the permit. Neither citation requires the installation of heat recovery steam generators and dedicated ancillary systems.

Final Determination

A negative determination for the heat recovery steam generator and associated dedicated ancillary equipment.

Administrative Review

Administrative Review Chronology

Application Received: 12/02/11

Application Administrative Review Start: 04/19/12

Application Administrative Review Complete: 04/19/12

Fee Information

Application Fee Paid: \$2,500.00

Fee Receipt Number(s):

R211804

Does Applicant Have Past Due Fees: No.

Technical Review

Technical Review Chronology

Application Technical Review Started: 07/06/12

Application Technical Review Complete: 07/06/12

Ronald Hatfield 7/6/12
Project Reviewer Date

Spencer 7/9/12
Work Leader Date

Application Review Summary

Application Number: 16410
Company: Cottonwood Energy Compnay, LP
Facility: Cottonwood Energy Center
County: Newton
Tier: III
Estimated Cost of Property: \$60,584,645.00
Project Reviewer: Ronald Hatlett

Description of Property

Unit 4 heat recovery steam generator and dedicated ancillary system.

Tier III Partial Percentage: 42.99%

Environmental Benefit

Use of this equipment improves the thermal efficiency of the plant.

Rule Citation(s)

The applicant cites 40 Code of Federal Regulations (CFR) §60.44Da(a) – Standard for nitrogen oxides (NOx) for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978. This citation establishes NOx emission standards for certain power plants. In addition, the applicant cites 30 Texas Administrative Code §122.143(4). This citation requires the permit holder to comply with all terms and conditions codified in the permit. Neither citation requires the installation of heat recovery steam generators and dedicated ancillary systems.

Final Determination

A negative determination for the heat recovery steam generator and associated dedicated ancillary equipment.

Administrative Review

Administrative Review Chronology

Application Received: 12/02/11

Application Administrative Review Start: 04/19/12

Application Administrative Review Complete: 04/19/12

Fee Information

Application Fee Paid: \$2,500.00

Fee Receipt Number(s):

R211803

Does Applicant Have Past Due Fees: No.

Technical Review

Technical Review Chronology

Application Technical Review Started: 07/06/12

Application Technical Review Complete: 07/06/12

Ronald Hatfield 7/6/12
Project Reviewer Date

John Q. Smith 7/9/12
Work Leader Date

Attachment 2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG -5 2004

OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Guidance on SIP Credits for Emission Reductions from Electric-Sector Energy Efficiency and Renewable Energy Measures

FROM: Brian McLean, Director *Brian McLean*
Office of Atmospheric Programs

Steve Page, Director *Steve Page*
Office of Air Quality Planning and Standards

TO: Regional Air Division Directors

Attached is a final document that provides guidance to States and local areas on quantifying and including emission reductions from energy efficiency and renewable energy measures in State Implementation Plans (SIPs). The guidance has been developed jointly by the Office of Air Quality Planning and Standards (OAQPS) and the Office of Atmospheric Programs (OAP).

Energy efficiency and renewable energy measures have many benefits. Energy efficiency measures reduce electricity consumption and renewable energy can supply energy from non- or less- polluting sources. These measures can save money, have other economic benefits, reduce dependence on foreign sources of fuel, increase the reliability of the electricity grid, enhance energy security, and, most importantly for air quality purposes, reduce air emissions from electric generating power plants. Energy efficiency and renewable energy inherently prevent pollution from occurring. Additionally, in many areas, the peak demand for electricity frequently coincides with periods of poor air quality. It is therefore desirable to encourage and reward greater application of energy efficiency and renewable energy measures and incorporate the emission reductions that these measures will accrue into the air quality planning process.

Please distribute this guidance to your state and local air pollution control agencies, interested members of the regulated community and the public. An electronic version of this final guidance can be found at <http://www.epa.gov/ttn/oarpg> under "Recent Additions." If your staff have any questions regarding this guidance please have them contact Art Diem of OAP at (202) 343-9340 or David Solomon of OAQPS at (919) 541-5375.

Attachment

Attachment 3

TAX EXEMPTION PROGRAM

Ohio Revised Code (ORC) Sections 5709.20 through 5709.27

5709.20 Definitions

5709.201 Continuing validity of certificates; transfer of pending applications.

5709.21 Certification procedure

5709.211 Opinion of EPA director or development director to be obtained prior to issuance of certificate.

5709.212. Application fee.

5709.22 Powers and duties of tax commissioner

5709.23 Notice to applicant and county auditor

5709.24 Appeal

5709.25 Exemption of pollution control facilities

5709.26 Liability in case of fraud

5709.27 Exemption certificate transfer

§ 5709.20 Definitions.

(A) "Air contaminant" means particulate matter, dust, fumes, gas, mist, smoke, vapor, or odorous substances, or any combination thereof.

(B) "Air pollution control facility" means any property designed, constructed, or installed for the primary purpose of eliminating or reducing the emission of, or ground level concentration of, air contaminants generated at an industrial or commercial plant or site that renders air harmful or inimical to the public health or to property within this state, or such property installed on or after November 1, 1993, at a petroleum refinery for the primary purpose of eliminating or reducing substances within fuel that otherwise would create the emission of air contaminants upon the combustion of fuel.

(C) "Energy conversion" means the conversion of fuel or power usage and consumption from natural gas to an alternate fuel or power source other than propane, butane, naphtha, or fuel oil; or the conversion of fuel or power usage and consumption from fuel oil to an alternate fuel or power source other than natural gas, propane, butane, or naphtha.

(D) "Energy conversion facility" means any additional property or equipment designed, constructed, or installed after December 31, 1974, for use at an industrial or commercial plant or site for the primary purpose of energy conversion.

(E) "Exempt facility" means any of the facilities defined in division (B), (D), (F), (I), (K) or (L) of this section for which an exempt facility certificate is issued pursuant to section 5709.21 or for which a certificate remains valid under section 5709.201 [5709.20.1] of the Revised Code.

(F) "Noise pollution control facility" means any property designed, constructed, or installed for use at an industrial or commercial plant or site for the primary purpose of eliminating or reducing, at that plant or site, the emission of sound which is harmful or inimical to persons or property, or materially reduces the quality of the environment, as shall be determined by the director of environmental protection within such standards for noise pollution control facilities and standards for environmental noise necessary to protect public health and welfare as may be promulgated by the United States environmental protection agency. In the absence of such United States environmental protection agency standards, the determination shall be made in accordance with generally accepted current standards of good engineering practice in environmental noise control.

(G) "Solid waste" means such unwanted residual solid or semi-solid material as results from industrial operations, including those of public utility companies, and commercial, distribution, research, agricultural, and community operations, including garbage, combustible or noncombustible, street dirt, and debris.

(H) "Solid waste energy conversion" means the conversion of solid waste into energy and the utilization of such energy for some useful purpose.

(I) "Solid waste energy conversion facility" means any property or equipment designed, constructed, or installed after December 31, 1974, for use at an industrial or a commercial plant or site for the primary purpose of solid waste energy conversion.

(J) "Thermal efficiency improvement" means the recovery and use of waste heat or waste steam produced incidental to electric power generation, industrial process heat generation, lighting, refrigeration, or space heating.

(K) "Thermal efficiency improvement facility" means any property or equipment designed, constructed, or installed after December 31, 1974, for use at an industrial or a commercial plant or site for the primary purpose of thermal efficiency improvement.

(L) "Industrial water pollution control facility" means any property designed, constructed, or installed for the primary purpose of collecting or conducting industrial waste to a point of disposal or treatment; reducing, controlling, or eliminating water pollution caused by industrial waste; or reducing, controlling, or eliminating the discharge into a disposal system of industrial waste or what would be industrial waste if discharged into the waters of this state. This division applies only to property related to an industrial water pollution control facility placed into operation or initially capable of operation after December 31, 1965, and installed pursuant to the approval of the environmental protection agency or any other governmental agency having authority to approve the installation of industrial water pollution control facilities. The definitions in section 6111.01 of the Revised Code, as applicable, apply to the terms used in this division.

(M) Property designed, constructed, installed, used, or placed in operation primarily for the safety, health, protection, or benefit, or any combination thereof, of personnel of a business, or primarily for a business's own benefit, is not an "exempt facility."

HISTORY: 130 v 1304 (Eff 10-14-63); 133 v S 169 (Eff 10-2-69); 135 v H 621 (Eff 11-22-73); 136 v S 498. Eff 1-17-77; 150 v H 95, § 1, eff. 6-26-03.

§ 5709.201. Continuing validity of certificates; transfer of pending applications.


(A) Except as provided in divisions (C)(4)(a) and (c) of section 5709.22 and division (F) of section 5709.25 of the Revised Code, a certificate issued under section 5709.21, 5709.31, 5709.46, or 6111.31 of the Revised Code that was valid and in effect on the effective date of this section shall continue in effect subject to the law as it existed before that effective date. Division (C)(4)(b) of section 5709.22 of the Revised Code does not apply to any certificate issued by the tax commissioner before July 1, 2003.

(B) Any applications pending on the effective date of this section for which a certificate had not been issued on or before that effective date under section 6111.31 of the Revised Code shall be transferred to the tax commissioner for further administering. Sections 5709.20 to 5709.27 of the Revised Code apply to such pending applications, excluding the requirement of section 5709.212 [5709.21.2] of the Revised Code that applicants must pay the fee.

(C) For applications pending on the effective date of this section, division (D) of section 5709.25 of the Revised Code allowing the commissioner to assess any additional tax notwithstanding any other time

limitations imposed by law on the denied portion of the applicant's claim applies only to tax periods that would otherwise be open to assessment on that effective date.

HISTORY: 150 v H 95, § 1, eff. 6-26-03.

 Back to Top

§ 5709.21 Certification procedure.

(A) As used in this section:

(1) "Exclusive property" means real and personal property that is installed, used, and necessary for the operation of an exempt facility, and that is not auxiliary property unless the auxiliary property exempt cost equals or exceeds eighty-five per cent of the total cost of the property.

(2) "Auxiliary property" means personal property installed, used, and necessary for the operation of an exempt facility that is also used in other operations of the business other than an exempt facility purpose described in section 5709.20 of the Revised Code. "Auxiliary property" does not include property with an auxiliary property exempt cost that is less than or equal to fifteen per cent of the total cost of such property.

(3) "Auxiliary property exempt cost" means the cost of auxiliary property calculated as follows:

(a) If the auxiliary property is used for an exempt facility purpose for discrete periods of time, the exempt cost shall be determined by the ratio of time the auxiliary property is in use in such exempt capacity to the total time it is in use. Division (A)(3)(a) of this section does not apply if the property is concurrently used for an exempt facility purpose and a nonexempt facility purpose.

(b) The applicant has the burden of proving the exempt cost of all auxiliary property not described in division (A)(3)(a) of this section.

(c) Any cost related to an expansion of the commercial or industrial site that is not related to the operation of the exempt facility shall not be included as an auxiliary exempt cost under division (A)(3) of this section.

(B) Application for an exempt facility certificate shall be filed with the tax commissioner in such manner and in such form as prescribed by the tax commissioner. The application shall contain plans and specifications of the property, including all materials incorporated or to be incorporated therein and their associated costs, and a descriptive list of all equipment acquired or to be acquired by the applicant for the exempt facility and its associated cost. If the commissioner finds that the property was designed primarily as an exempt facility and is suitable and reasonably adequate for such purpose and is intended for such purpose, the commissioner shall enter a finding and issue a certificate to that effect. The effective date of the certificate shall be the date the application was made for such certificate or the date of the construction of the facility, whichever is earlier.

Nothing in this section shall be construed to extend the time period to file, to keep the time period to file open, or supersede the requirement of filing a tax refund or other tax reduction request in the manner and within the time prescribed by law.

(C) (1) Except as provided in division (C)(2) of this section, the certificate shall permit tax exemption pursuant to section 5709.25 of the Revised Code only for that portion of such exempt facility that is exclusive property used for a purpose enumerated in section 5709.20 of the Revised Code. • • •

Attachment 4

AFFIDAVIT OF ROBERT ROLAND

STATE OF LOUISIANA §

PARISH OF POINTE COUPEE §

BEFORE ME, the undersigned authority, on this day personally appeared Robert Roland,
known to me as that person, and after being duly sworn, stated under oath the following:

1. "My name is Robert Roland. I am over twenty-one (21) years of age, am fully competent to testify and unless expressly stated otherwise, I have personal knowledge of all facts stated herein, and all such facts are to the best of my knowledge true and correct.


2. I am employed as the current Manager, Regional Engineering, and was Asset Manager over the Cottonwood Energy Center (the "Facility") at the time the Tier III Use Determination Applications were filed, a position I had held since 2009, and in that capacity I am familiar with the information described below.

3. The Facility is a 1260MW combined cycle facility, utilizing 4 Heat Recovery Steam Generators (“HRSGs”) in the production of electricity and located in Newton County, Texas.

4. I have provided technical information in support of the Tier III Use Determination Applications; No. 15505, No. 16412, No. 16411 and No. 16410 (the "Application")(attached hereto as Attachments "A, B, C and D") prepared and submitted to the TCEQ on July 5, 2011 (first application) and on December 2, 2011 (2nd, 3rd and 4th applications, respectively).

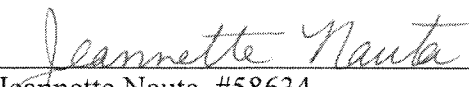
5. Based on my industry experience and knowledge of the Facility, the prevention of air emissions, as described in the application, are in conformance with the expected capabilities and historical performance of the Facility.

6. FURTHER AFFIANT SAYETH NOT.”



Robert Roland

BEFORE ME, the undersigned authority, on this the 29th day of October 2012, personally appeared Robert Roland, who being duly sworn on his oath, deposed and said that he has read the foregoing and that every factual statement made therein is within his knowledge and is true and correct.



Jeannette Nauta, #58634
Notary Public in and for the State of Louisiana
My Commission is for life

DUFF & PHELPS

TCEQ Cashier's Office - MC-214
Building A
12100 Park 35 Circle
Austin, TX 78753

June 30, 2011

Re: Application for Use Determination for Air Pollution Control Property Located at
Cottonwood Energy Center in Newton County, Texas

Enclosed please find one application (the "Application") for property tax exemption for Air
Pollution Control Property located at Cottonwood Energy Center (the "Facility") in Newton County,
Texas. A copy of the Application has been provided for the appraisal district.

Pursuant to Title 30 of Chapter 17 of the Texas Administrative Code, the Application has been
prepared using the Texas Commission on Environmental Quality ("TCEQ") Application for Use
Determination for Pollution Control Property. The enclosed application is a Tier III Application.
Submission of this Application is required as a process step in the TCEQ's pollution control
certification process for tax exemption of certain assets used in pollution control capacities within
the Facility. As outlined by the application instructions, the fee for this Tier III Application is
\$2,500. Please find enclosed a check for the \$2,500 Tier III Application Fee.

The Application can be summarized as follows:

Property	Description	Estimated Cost
Tier III	Unit 1 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	\$ 26,043,320

Please send one copy of the completed property tax exemption Use Determination to the
following address:

Mr. Greg Maxim
Duff & Phelps LLC
919 Congress Avenue, Suite 1450
Austin, TX 78701

Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, TX 78701

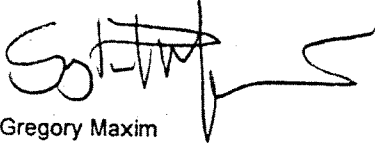
T +1 512 871 5580
F +1 512 351 7911

gregory.maxim@duffandphelps.com
www.duffandphelps.com

TCEQ Cashier's Office
June 30, 2011
Page 2 of 2

If you have any questions regarding the Application or the information supplied within the Application, please contact me, Greg Maxim, Director, Duff & Phelps LLC, at (512) 671-5580 or by e-mail at gregory.maxim@duffandphelps.com.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Greg Maxim', with a stylized flourish extending to the right.

Gregory Maxim
Director
Specialty Tax

Enclosures

cc: Ms. Kathryn Tronsberg Macciocca (Duff & Phelps, LLC)

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease, lease-to-own agreement, or environmental incentive grant? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?
Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is 'Yes', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?
Corporation ☐ Partnership ☐ Utility ☐
Sole Proprietor ☐ Limited Partner ☐ Other: **Limited Liability**
2. Size of Company: Number of Employees
1 to 99 ☒ 500 to 999 ☐ 2,000 to 4,999 ☐
100 to 499 ☐ 1,000 to 1,999 ☐ 5,000 or more ☐
3. Business Description: (Briefly describe the type of business or activity at the facility)
Natural Gas-Fired Electric Power Generation
4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. **221122 - Electric Power Generation, fossil fuel**

Section 3. Type of Application and Fee

1. Select only one:

Tier I – Fee: \$150 ☐

Tier II – Fee: \$1,000 ☐

Tier III – Fee: \$2,500 ☒

2. Payment Information:

Check/Money Order/Electronic Payment Receipt Number:

Payment Type: Check

Payment Amount: \$2,500

Name on payment: Duff & Phelps

Total Amount: \$2,500

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Cottonwood Energy Company LP
2. Mailing Address: 976 County Road 4213
3. City, State, Zip: Deweyville, TX 77614
4. Customer Number (CN): CN602765687
5. Regulated Entity Number (RN): RN100226109
6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐
If the answer is 'No,' please explain: N/A
7. Is this property/equipment leased from a third party? Yes ☐ No ☒
If the answer is 'Yes,' please explain: N/A
8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐
If the answer is 'No,' please explain: N/A

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name: N/A
2. Mailing Address: N/A
3. City, State, Zip: N/A
4. Customer Number (CN): N/A
5. Regulated Entity Number (RN): N/A

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located:
Cottonwood Energy Center
2. Type of Mfg. Process or Service: **Natural Gas-Fired Electric Power Generation**

3. Street Address: 976 County Road 4213
4. City, State, Zip: Deweyville, TX 77614

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Newton County
2. District Account Number(s): 9900015-0805153

Section 8. Contact Name

1. Company Name: Duff & Phelps, LLC
2. First Name of Contact: Greg
3. Last Name of Contact: Maxim
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title: Director
6. Mailing Address: 919 Congress Avenue, Suite 1450
7. City, State, Zip: Austin, TX 78701
8. Phone Number/Fax Number: (P) 512-671-5580; (F) 512-351-7911
9. Email Address: Gregory.maxim@duffandphelps.com
10. Tracking Number (optional): CC-2011-48

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment:
Unit 1 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems
2. Is the property/equipment used 100% as pollution control equipment? Yes ☐ No ☒
If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: N/A. See Calculation of Percentage of pollution control Property in attached Cost Analysis Procedure ("CAP") Model.
3. Does the property/equipment generate a Marketable Product? Yes ☒ No ☐
If the answer is 'Yes,' describe the marketable product: Electricity
4. What is the appropriate Tier I Table or Expedited Review List number? ERL #8
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

If the answer is 'No,' separate applications must be filed for each piece of property/equipment.

6. List applicable permit number(s) for the property/equipment: Title V Operating Permit O2338

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☐ N/A ☒

If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment? N/A
9. What is the cost of the comparable property/equipment? N/A
10. How was the value of the comparable property/equipment calculated? N/A

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?)

Background: Cottonwood Energy Center

The Cottonwood Energy Center (the "Facility") is a natural gas-fired, combined cycle power generating facility located in Deweyville, Newton County, Texas. Four GE 7-FA combustion turbines are routed to four Foster Wheeler heat recovery steam generators ("HRSGs"), which provide steam to four Alstom steam turbine-generator sets. The Facility began commercial operation in December 2003. It has a base load capacity of 1,260 MW. The Facility serves the SERC Reliability Corporation region.

Pollution Control Property Description – Cottonwood Unit 1 HRSG

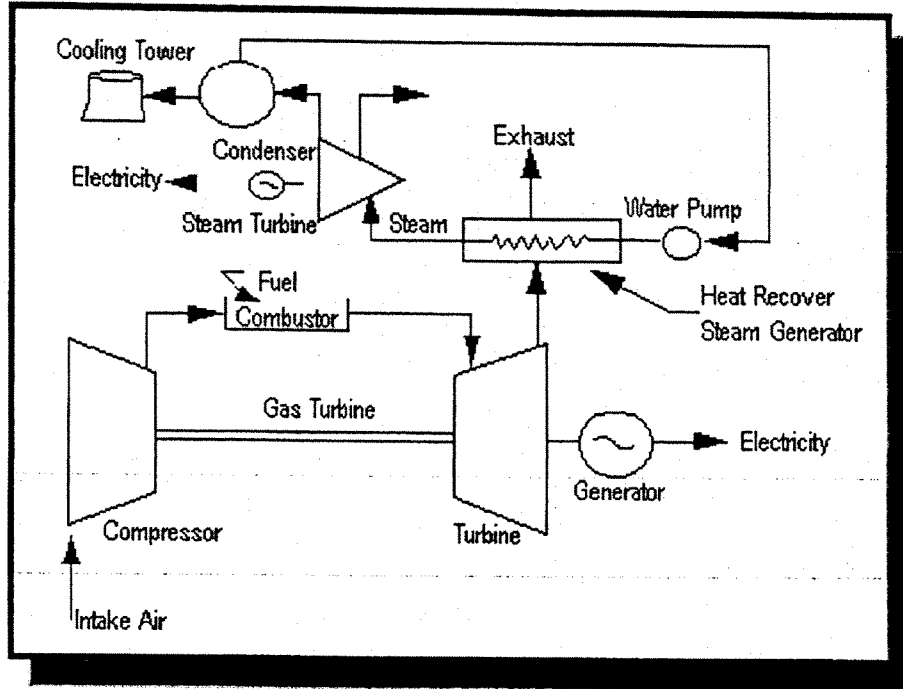
The pollution control property described in this Application is the Unit 1 HRSG and dedicated ancillary system (the "PC Property") installations.

Cottonwood Unit 1 HRSG

The Facility consists of a combined-cycle gas turbine power plant with four (4) gas Combustion Turbines ("CTs") each equipped with HRSGs and dedicated ancillary systems necessary to capture heat from the CTs' exhaust and convert it into electrical power. The Unit 1 HRSG captures and utilizes the waste heat of combustion from the Unit 1 CT exhaust gas and utilizes this waste heat to produce steam, which in turn powers a steam turbine-generator set to produce electric power at the Facility in addition to the electric power generated by the CT alone.

The Facility gains both production and pollution control benefits from the subject PC Property. First, the use of this waste heat of combustion by the Unit 1 HRSG creates a thermal efficiency benefit for the Facility. Specifically, the use of waste heat in the Unit 1 CT exhaust gas results in the conversion of approximately 50% of the chemical energy of the natural gas utilized at the Facility into electricity (HHV basis), a gain over the CT's alone's use of the fuel. Secondly, due to this efficiency gain, the Facility is able to generate fewer emissions (particularly NO_x emissions) than a traditional power generation facility utilizing a single thermodynamic cycle; and allowing the subject PC Property to appear on the Expedited Review List.

The Figure below is representative of a simplified combined-cycle plant process flow.



Please see the Cost Analysis Procedure ("CAP") Model attached for the calculation of the percentage of the subject pollution control property eligible for property tax exemption.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level.

The PC Property was installed to meet the requirements of 40 CFR Part 60.44da(a) "Standards for nitrogen oxides ("NOx") for Electric Utility Steam generating units for New Source Performance Standards ("NSPS")".

As well, the PC Property allows emissions to meet or exceed Best Available Control Technology emission limitations established in Federal Operating Permit #O2338. Per 30 Texas Administrative Code ("TAC") §122.143(4), the permit holder must comply with all terms and conditions codified in the permit and any provisional terms and conditions required to be included with the permit.

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment?

The PC Property reduces the formation of and/or controls the emission of NO_x and other air emissions associated with the combustion of natural gas used in combined cycle power generation at the Facility.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Please see the simplified Process Flow Diagram above for a representation of the combined-cycle power plant.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Please see the attachment to this application for the Cost Analysis Procedure ("CAP") Calculations.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	N/A	42.99%	\$ 60,584,465
Property:			
Property:			
Total:			\$ 26,043,320

Attach additional response sheets to the application if more than three (3) pieces.

NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

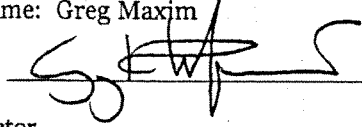
Section 13. Certification Signature

Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Greg Maxim

Date: 6/30/2011

Signature: _____

Title: Director

Company Name: Duff & Phelps, LLC

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to \$2,000, or a prison term of two to 10 years and a fine of up to \$5,000.

Taxpayer: Cottonwood Energy Company, LP
 Plant: Cottonwood Energy Center
 Plant Summary: 1,200 MW 4x4 Combined Cycle Power Plant (2008)
 Plant Location: Newton County, Texas
 Project: Tier II Cost Analysis Procedure ("CAP") Calculations
 Date: June 30, 2011
 Rev: 7

Source Legend	
C	Calculated Assumption
D&P	D&P VAS Standard/Estimate
OW	Cottonwood Plant-Provided Data
HH	Energy Hub Natural Gas Pricing
30 TAC	30 TAC Chapter 17

I. Assumptions

Plant Design Profile			Conversion Factors		Economic Assumptions			Levelized Cost of Energy ("LCOE") Model Outputs*	
PC Property		Source	Hours/Year	6,780	Discount Rate	10.0%	D&P	Capital Recovery Factor ("CRF")	10.25%
PC Property Capital Cost	\$ 60,584,465	OW	1/MWH	1,200	Periods	40	OW	LCOE (\$/MWh)	0.03078
PC Property Capital Cost (\$/kW)	\$ 708	C	1/kg	3.30	PC Property Fixed O&M Cost (\$/MWh-yr)	\$ 4.53	OW		
PC Property Capacity (MW)	292	OW	1/kWh	3,800	Fuel Cost (\$/MMBTU)	\$ 2.80	HH		
PC Property Net Annual Generation Capacity (MWh)	808,483,135	C	1/tonne	1,000,000	PC Property Variable Cost (\$/MWh)	\$ 0.48	OW		
PC Property Net Annual Generation Capacity (MWh)	808,483	C			PC Property Variable Cost (\$/MWh)	\$ 0.00	C		
Plant Capacity Factor	31.85%	OW			SERC Electricity Pricing (\$/MWh) ¹⁹	\$ 35.32	SRL		
Plant Heat Rate (Btu/MWh)	7,503	OW			Interest Rate	10%	30 TAC		
Plant Heat Rate (MMBTU/kWh)	0.01	C							
Capital Cost OM ("CCOM")									
Comparable Technology Cost	\$ -								
Comparable Technology	\$ -								
Design Capacity Factor	0%								
Capacity ("MW")	1								

¹⁹ Three-year average daily historical electricity rates for SERC Reliability Corporation.

Taxpayer: Cottonwood Energy Company, LP
 Plant: Cottonwood Energy Center
 Plant Siting: 1,360 MW and Configuration Combined Cycle Power Plant (2003)
 Plant Location: Newton County, Texas
 Project: Tier II Cost Analysis Procedure ("CAP") Calculations
 Date: June 30, 2011
 Rev: 7

B. Cost Analysis Procedure ("CAP")

Formula:

$$\frac{[(PCF \times CCN) - CCO - MP]}{CCN}$$

A. Definitions (provided by TCEQ)

1. Production Capacity Factor ("PCF")

The ratio of the capacity of the existing equipment or process to the capacity of the new equipment or process.

2. Capital Cost New ("CCN")

CCN is the estimated total capital cost of the new equipment or process.

3. Capital Cost Old ("CCO")

CCO is the cost of comparable equipment or a comparable process without the pollution control.

The standards for calculating CCO are:

1. If comparable equipment without the pollution control feature is on the market in the U.S., then use the average market price of the most recent generation of technology must be used.
2. If the conditions in variable 3.1 do not apply and the company is replacing an existing unit that already has received a positive use determination, the company shall use the CCO from the application for the previous use determination.
3. If the conditions in variable 3.1 and 3.2 do not apply and the company is replacing an existing unit, then the company shall convert the original cost of the unit to today's dollars by using a published industry specific standard. If the production capacity of the new equipment or process is lower than the production capacity of the old equipment or process CCO is divided by the PCF to adjust CCO to reflect the same capacity as CCN.
4. If the conditions in variables 3.1, 3.2 and 3.3 do not apply, and the company can obtain an estimate to manufacture the alternative equipment without the pollution control feature, then an average estimated cost to manufacture the unit must be used. The comparable unit must be the most recent generation of technology. A copy of the estimate must be provided with the worksheet including the specific source of the information.

4. Marketable Product ("MP")

Anything produced or recovered using pollution control property that is sold as a product, is accumulated for later use, or is used as raw material in a manufacturing process. Marketable product includes, but is not limited to, anything recovered or produced using the pollution control property sold, traded, accumulated for later use, or used in a manufacturing process (including at a different facility). Marketable product does not include any emission credits or emission allowances that result from installation of the pollution control property.

5. Marketable Product Value ("MPV")

The marketable product value may be calculated in one of two ways:

1. The retail value of the product produced by the equipment for one year periods. Typically, the most recent three-year average price of the material as sold on the market should be used in the calculation. If the price varies from state-to-state, the applicant shall calculate an average and explain how the figures were determined.
2. If the material is used as an intermediate material in a production process, then the value assigned to the material for internal accounting purposes may be used. It is the responsibility of the applicant to show that the internally assigned value is comparable to the value assigned by other similar producers of the product.

6. Direct Costs of Production ("DCP")

The costs directly attributed to the production of the product, including raw materials, storage, transportation, and personnel, but excluding non-cash costs, such as overhead and depreciation.

7. n Factor

The estimated useful life in years of the equipment that is being evaluated for a use determination

8. f Factor

Year One.

9. Interest Rate

10%.

10 Title 30, Texas Administrative Code, Chapter 17

B. CAP Formulas (provided by TCEQ)

$$\text{Partial Use Determination} = \frac{[(PCF \times CCN) - CCO - NPVMP]}{CCN}$$

Where:

$$\text{Production Capacity Factor ("PCF")} = \frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}}$$

And where:

$$NPVMP = \sum_{t=1}^n \frac{MPV_t - PC}{(1 + \text{Interest Rate})^t}$$

C. CAP Formulas for PG Property

$$\text{Marketable Product Value ("MPV")} = \text{Electricity Price (\$/MWh)} \times \text{MWh per Year}$$

$$\text{Direct Cost of Production ("DCP")} = \text{LCOE} \times \text{MWh per year}$$

$$\text{LCOE} = \frac{\left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \frac{\text{Capital Recovery Factor}}{x} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}}}{\left(\frac{\text{Fuel Cost}}{x} \times \text{Heat Rate} \right)}$$

Taxpayer: Cottonwood Energy Company, LP
 Plant: Cottonwood Energy Center
 Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
 Plant Location: Newton County, Texas
 Project: Tier III Cost Analysis Procedure ("CAP") Calculations
 Date: June 30, 2011
 Rev: 7

III. Cost Analysis Procedure ("CAP") Calculations for Cottonwood Unit 1 HRSG

$$\text{Formula: } \frac{(\text{PCF} \times \text{CCN}) - \text{CCO} - \text{NPVMP}}{\text{CCN}}$$

A. Marketable Product Value ("MPV")

$$\begin{aligned} \text{Electricity Price} & \frac{\$}{\text{MWh}} \times \frac{\text{Plant MWh}}{\text{Year}} = (\$) \text{ MPV} \\ \$35.32 & \frac{\$}{\text{MWh}} \times 808,493 \frac{\text{MWh}}{\text{Year}} = \$28,557,781 \end{aligned}$$

B. Production Cost ("PC")

$$\begin{aligned} \text{Levelized Cost of Energy ("LCOE")} & \frac{\$}{\text{kWh}} \times \frac{\text{Plant kWh}}{\text{Year}} = (\$) \text{ PC} \\ \$0.0308 & \frac{\$}{\text{kWh}} \times 808,493,135 \frac{\text{kWh}}{\text{Year}} = \$24,863,682 \end{aligned}$$

Net Present Value Marketable Product ("NPVMP") Calculation

$$\sum_{t=1}^n \frac{(\$) \text{ MPV} - (\$) \text{ PC}}{(1 + \text{Interest Rate})^t} = \boxed{\text{NPVMP } (\$)}$$

$$\sum_{t=1}^n \frac{\$28,557,781 - \$24,863,682}{(1 + 10\%)^t} = \$34,541,145 = \boxed{\text{NPVMP } \$34,541,145}$$

* If MP is < 0, then MP = 0.

Taxpayer: Cottonwood Energy Company, LP
 Plant: Cottonwood Energy Center
 Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
 Plant Location: Newton County, Texas
 Project: Tier III Cost Analysis Procedure ("CAAP") Calculations
 Date: June 30, 2011
 Rev: 7

C. Production Capacity Factor ("PCF")

$$\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}} = \text{PCF}$$

$$\frac{0}{292 \text{ MW} \times 31.85\%} = \text{PCF}$$

$$= 1.000$$

D. Capital Cost New ("CCN")
PC Property

$$\text{CCN} = \$50,584,465$$

E. Capital Cost Old ("CCO")
Comparable Technology

$$\text{CCO} = \$0$$

Partial Use Determination Calculation

(PCF x CCN)	CCO	MP	Partial Use Determination %
1.000 x \$50,584,465	\$0	\$34,541,145	42.00%
	\$50,584,465		

TCEQ Use Determination Application Section 12, Use	
Use Percent	42.00%
Estimated Dollar Value	\$ 50,584,465

$$\text{Eligible HRSG Costs} = \$ 26,043,320$$

$$(\text{Partial Use Determination \%} \times \text{PC Property Cost})$$

ATTACHMENT A

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: June 30, 2011
Rev: 7

Levelized Cost of Energy ("LCOE") Model⁽¹⁾

Formulas

$$\text{Capital Recovery Factor ("CRF")} = \frac{i \times (1 + i)^n}{(1 + i)^n - 1}$$

$$\text{LCOE} = \left(\frac{\text{Capital Cost} \times \text{CRF}}{\text{Hours per Year} \times \text{Capacity Factor}} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate} \right)$$

Calculations

Capital Recovery Factor 10.23%

LCOE (\$/kWh) \$ 0.03079

⁽¹⁾ http://www.nrel.gov/analysis/lcoe_documentation.html

Note: The Levelized Cost of Energy is a calculation developed by the United States Department of Energy's National Renewable Energy Lab to determine the cost of generating energy (electricity) using the design or performance criteria for a specific power generation unit. The website above gives a more detailed description of the model and its development.

Electricity - PV Calculations

Difference	Period	Interest Rate	PV - Period
\$3,664,099	1	1.10	\$ 3,330,999
\$3,664,099	2	1.21	\$ 3,028,181
\$3,664,099	3	1.331	\$ 2,752,892
\$3,664,099	4	1.4641	\$ 2,502,829
\$3,664,099	5	1.61051	\$ 2,275,117
\$3,664,099	6	1.771561	\$ 2,068,288
\$3,664,099	7	1.9487171	\$ 1,880,262
\$3,664,099	8	2.14358881	\$ 1,709,329
\$3,664,099	9	2.357947691	\$ 1,553,936
\$3,664,099	10	2.59374246	\$ 1,412,669
\$3,664,099	11	2.853116706	\$ 1,284,244
\$3,664,099	12	3.138428377	\$ 1,167,495
\$3,664,099	13	3.452271214	\$ 1,061,359
\$3,664,099	14	3.797498336	\$ 964,872
\$3,664,099	15	4.177248169	\$ 877,156
\$3,664,099	16	4.594972986	\$ 797,415
\$3,664,099	17	5.054470285	\$ 724,922
\$3,664,099	18	5.559917313	\$ 659,020
\$3,664,099	19	6.115909045	\$ 599,109
\$3,664,099	20	6.727499949	\$ 544,645
\$3,664,099	21	7.400249944	\$ 495,132
\$3,664,099	22	8.140274939	\$ 450,120
\$3,664,099	23	8.954302433	\$ 409,200
\$3,664,099	24	9.849732676	\$ 372,000
\$3,664,099	25	10.83470594	\$ 338,182
\$3,664,099	26	11.91817654	\$ 307,438
\$3,664,099	27	13.10999419	\$ 279,489
\$3,664,099	28	14.42099361	\$ 254,081
\$3,664,099	29	15.86309297	\$ 230,983
\$3,664,099	30	17.44940227	\$ 209,984
NPVMP:			\$ 34,541,145

5052

DUFF & PHELPS LLC
ACCOUNTS PAYABLE

300 HEADQUARTERS PLAZA
EAST TOWER 12TH FLOOR
MORRISTOWN NJ 07960

DATE April 20, 2011

DATE

\$ 2,500.00

Five thousand five hundred and no/100 DOLLARS

TCE &

Bank of America

CHARTERED MEMBER

FOR

⑆005052⑆ ⑆02500003⑆ ⑆8885008155⑆

DUFF & PHELPS

TCEQ Cashier's Office - MC-214
Building A
12100 Park 35 Circle
Austin, TX 78753

December 2, 2011

Re: Application for Use Determination for Air Pollution Control Property Located at
Cottonwood Energy Center in Newton County, Texas

Enclosed please find one application (the "Application") for property tax exemption for Air Pollution Control Property located at Cottonwood Energy Center (the "Facility") in Newton County, Texas. A copy of the Application has been provided for the appraisal district.

Pursuant to Title 30 of Chapter 17 of the Texas Administrative Code, the Application has been prepared using the Texas Commission on Environmental Quality ("TCEQ") Application for Use Determination for Pollution Control Property. The enclosed application is a Tier III Application. Submission of this Application is required as a process step in the TCEQ's pollution control certification process for tax exemption of certain assets used in pollution control capacities within the Facility. As outlined by the application instructions, the fee for this Tier III Application is \$2,500. Please find enclosed a check for the \$2,500 Tier III Application Fee.

The Application can be summarized as follows:

Property	Description	Estimated Cost
Tier III	Unit 2 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	\$ 26,043,320

Please send one copy of the completed property tax exemption Use Determination to the following address:

Mr. Greg Maxim
Duff & Phelps LLC
919 Congress Avenue, Suite 1450
Austin, TX 78701

Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, TX 78701

t +1 512 671 5580
f +1 512 351 7911

gregory.maxim@duffandphelps.com
www.duffandphelps.com

TCEQ Cashier's Office

June 30, 2011

Page 2 of 2

If you have any questions regarding the Application or the information supplied within the Application, please contact me, Greg Maxim, Director, Duff & Phelps LLC, at (512) 671-5580 or by e-mail at gregory.maxim@duffandphelps.com.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Greg Maxim', with a stylized flourish at the end.

Gregory Maxim
Director
Specialty Tax

Enclosures

cc: Ms. Kathryn Tronsberg Macciocca (Duff & Phelps, LLC)

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease, lease-to-own agreement, or environmental incentive grant? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?
Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is 'Yes', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?
Corporation ☐ Partnership ☐ Utility ☐
Sole Proprietor ☐ Limited Partner ☐ Other: **Limited Liability**
2. Size of Company: Number of Employees
1 to 99 ☒ 500 to 999 ☐ 2,000 to 4,999 ☐
100 to 499 ☐ 1,000 to 1,999 ☐ 5,000 or more ☐
3. Business Description: (Briefly describe the type of business or activity at the facility)
Natural Gas-Fired Electric Power Generation
4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. **221122 - Electric Power Generation, fossil fuel**

Section 3. Type of Application and Fee

1. Select only one:

Tier I – Fee: \$150 ☐

Tier II – Fee: \$1,000 ☐

Tier III – Fee: \$2,500 ☒

2. Payment Information:

Check/Money Order/Electronic Payment Receipt Number:

Payment Type: Check ☒

Payment Amount: \$2,500

Name on payment: Duff & Phelps

Total Amount: \$2,500

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Cottonwood Energy Company LP

2. Mailing Address: 976 County Road 4213

3. City, State, Zip: Deweyville, TX 77614

4. Customer Number (CN): CN602765687

5. Regulated Entity Number (RN): RN100226109

6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐

If the answer is 'No,' please explain: N/A

7. Is this property/equipment leased from a third party? Yes ☐ No ☒

If the answer is 'Yes,' please explain: N/A

8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐

If the answer is 'No,' please explain: N/A

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name: N/A

2. Mailing Address: N/A

3. City, State, Zip: N/A

4. Customer Number (CN): N/A

5. Regulated Entity Number (RN): N/A

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located:

Cottonwood Energy Center

2. Type of Mfg. Process or Service: **Natural Gas-Fired Electric Power Generation**

3. Street Address: 976 County Road 4213
4. City, State, Zip: Deweyville, TX 77614

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Newton County
2. District Account Number(s): 9900015-0805153

Section 8. Contact Name

1. Company Name: Duff & Phelps, LLC
2. First Name of Contact: Greg
3. Last Name of Contact: Maxim
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title: Director
6. Mailing Address: 919 Congress Avenue, Suite 1450
7. City, State, Zip: Austin, TX 78701
8. Phone Number/Fax Number: (P) 512-671-5580; (F) 512-351-7911
9. Email Address: Gregory.maxim@duffandphelps.com
10. Tracking Number (optional): CC-2011-48
2012-02

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment:
Unit 1 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems
2. Is the property/equipment used 100% as pollution control equipment? Yes ☐ No ☒
If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: N/A. See Calculation of Percentage of pollution control Property in attached Cost Analysis Procedure ("CAP") Model.
3. Does the property/equipment generate a Marketable Product? Yes ☒ No ☐
If the answer is 'Yes,' describe the marketable product: Electricity
4. What is the appropriate Tier I Table or Expedited Review List number? ERL #8
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

If the answer is 'No,' separate applications must be filed for each piece of property/equipment.

6. List applicable permit number(s) for the property/equipment: Title V Operating Permit O2338

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☐ N/A ☒

If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment? N/A
9. What is the cost of the comparable property/equipment? N/A
10. How was the value of the comparable property/equipment calculated? N/A

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?)

Background: Cottonwood Energy Center

The Cottonwood Energy Center (the "Facility") is a natural gas-fired, combined cycle power generating facility located in Deweyville, Newton County, Texas. Four GE 7-FA combustion turbines are routed to four Foster Wheeler heat recovery steam generators ("HRSGs"), which provide steam to four Alstom steam turbine-generator sets. The Facility began commercial operation in December 2003. It has a base load capacity of 1,260 MW. The Facility serves the SERC Reliability Corporation region.

Pollution Control Property Description – Cottonwood Unit 2 HRSG

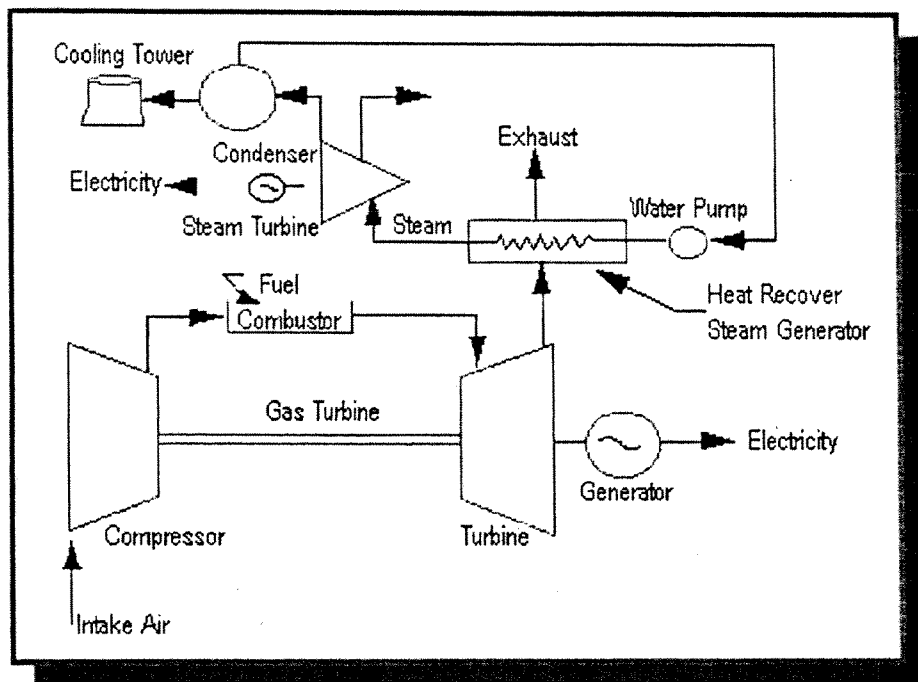
The pollution control property described in this Application is the Unit 2 HRSG and dedicated ancillary system (the "PC Property") installations.

Cottonwood Unit 2 HRSG

The Facility consists of a combined-cycle gas turbine power plant with four (4) gas Combustion Turbines ("CTs") each equipped with HRSGs and dedicated ancillary systems necessary to capture heat from the CTs' exhaust and convert it into electrical power. The Unit 2 HRSG captures the waste heat of combustion from the Unit 2 CT exhaust gas and utilizes this waste heat to produce steam, which in turn powers a steam turbine-generator set to produce electric power at the Facility in addition to the electric power generated by the CT alone.

The Facility gains both production and pollution control benefits from the subject PC Property. First, the use of this waste heat of combustion by the Unit 2 HRSG creates a thermal efficiency benefit for the Facility. Specifically, the use of waste heat in the Unit 2 CT exhaust gas results in the conversion of approximately 50% of the chemical energy of the natural gas utilized at the Facility into electricity (HHV basis), a gain over the use of the fuel by these CTs alone. Secondly, due to this efficiency gain, the Facility is able to generate fewer emissions (particularly NO_x emissions) than a traditional power generation facility utilizing a single thermodynamic cycle; thus supporting the subject PC Property's inclusion on the Expedited Review List.

The Figure below is representative of a simplified combined-cycle plant process flow.



Please see the Cost Analysis Procedure ("CAP") Model attached for the calculation of the percentage of the subject pollution control property eligible for property tax exemption.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level.

The PC Property was installed to meet the requirements of 40 CFR Part 60.44da(a) "Standards for nitrogen oxides ("NOx") for Electric Utility Steam generating units for New Source Performance Standards ("NSPS")".

As well, the PC Property allows emissions to meet or exceed Best Available Control Technology emission limitations established in Federal Operating Permit #O2338. Per 30 Texas Administrative Code ("TAC") §122.143(4), the permit holder must comply with all terms and conditions codified in the permit and any provisional terms and conditions required to be included with the permit.

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment?

The PC Property reduces the formation of and/or controls the emission of NO_x and other air emissions associated with the combustion of natural gas used in combined cycle power generation at the Facility.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Please see the simplified Process Flow Diagram above for a representation of the combined-cycle power plant.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Please see the attachment to this application for the Cost Analysis Procedure ("CAP") Calculations.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	N/A	42.99%	\$ 60,584,465
Property:			
Property:			
Total:			\$ 26,043,320

Attach additional response sheets to the application if more than three (3) pieces.

NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

Section 13. Certification Signature

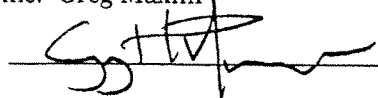
Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Greg Maxim

Date: 12/2/2011

Signature: _____



Title: Director

Company Name: Duff & Phelps, LLC

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to \$2,000, or a prison term of two to 10 years and a fine of up to \$5,000.

Transpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,200 MW d/d Configuration Combined Cycle Power Plant (2023)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

Source Legend	
C	Calculated Assumption
DAP	DAP VAS Standard Estimate
CW	Cottonwood Client Provided Data
HH	Henry Hub Natural Gas Pricing
30 TAC	30 TAC Chapter 17

I. Assumptions

Plant Design Profile			Conversion Factors			Economic Assumptions			Levelized Cost of Energy ("LCOE") Model Outputs*		
PC Property	Value	Source	Hours/Year	W/MW	Source	Discount Rate	Periods	Source	Capital Recovery Factor (CRF)	LCOE (\$/MWh)	
PC Property Capital Cost (\$/kW)	\$ 80,584,465	CW	8,760	1,000	DAP	10.0%	40	DAP	\$	10.23%	
PC Property Capacity (MW)	208	C	2,20	2,20	CW	4.53	40	CW		0.0379	
PC Property Net Annual Generation Capacity (MW)	808,493.135	C	3,800	3,800	HH	\$ 2.80	HH	HH			
PC Property Net Annual Generation Capacity (\$/MWh)	808,493	C	1,000,000	1,000,000	CW	\$ 0.48	CW	CW			
Plant Capacity Factor	31.65%	CW			C	\$ 0.00	C	C			
Plant Heat Rate (Btu/kWh)	7,503	CW			SNL	\$ 35.32	SNL	SNL			
Plant Heat Rate (MMBtu/MWh)	0.01	C			10%		30 TAC	30 TAC			
Capital Cost Old ("CCO")											
Comparative Technology Cost	\$										
Comparative Technology	\$										
Design Capacity Factor	0%										
Capacity (MW)	1										

(*) Three-year average daily historical electricity rates for SERC Reliability Corporation.

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

II. Cost Analysis Procedure ("CAP")
Formula:
$$\frac{[(PCF \times CCN) - CCO - MPV]}{CCN}$$

A. Definitions (provided by TCEQ)¹

1. **Production Capacity Factor ("PCF")**
The ratio of the capacity of the existing equipment or process to the capacity of the new equipment or process.

2. **Capital Cost New ("CCN")**
CCN is the estimated total capital cost of the new equipment or process.

3. **Capital Cost Old ("CCO")**
CCO is the cost of comparable equipment or a comparable process without the pollution control.
The standards for calculating CCO are:

3.1. If comparable equipment without the pollution control feature is on the market in the U.S., then use the average market price of the most recent generation of technology must be used.

3.2. If the conditions in variable 3.1 do not apply and the company is replacing an existing unit that already has received a positive use determination, the company shall use the CCO from the application for the previous use determination.

3.3. If the conditions in variable 3.1 and 3.2 do not apply and the company is replacing an existing unit, then the company shall convert the original cost of the unit to today's dollars by using a published industry specific standard. If the production capacity of the new equipment or process is lower than the production capacity of the old equipment or process CCO is divided by the PCF to adjust CCO to reflect the same capacity as CCN.

3.4. If the conditions in variables 3.1, 3.2 and 3.3 do not apply, and the company can obtain an estimate to manufacture the alternative equipment without the pollution control feature, then an average estimated cost to manufacture the unit must be used. The comparable unit must be the most recent generation of technology. A copy of the estimate must be provided with the worksheet including the specific source of the information.

4. **Marketable Product ("MP")**

Anything produced or recovered using pollution control property that is sold as a product, is accumulated for later use, or is used as raw material in a manufacturing process. Marketable product includes, but is not limited to, anything recovered or produced using the pollution control property sold, traded, accumulated for later use, or used in a manufacturing process (including at a different facility). Marketable product does not include any entires on credits or emissions allowances that result from installation of the pollution control property.

5. **Marketable Product Value ("MPV")**

The marketable product value may be calculated in one of two ways:

1. The retail value of the product produced by the equipment for one year periods. Typically, the most recent three-year average price of the material as sold on the market should be used in the calculation. If the price varies from state-to-state, the applicant shall calculate an average and explain how the figures were determined.

2. If the material is used as an intermediate material in a production process, then the value assigned to the material for internal accounting purposes may be used. It is the responsibility of the applicant to show that the internally assigned value is comparable to the value assigned by other similar producers of the product.

6. **Direct Costs of Production ("DCP")**

The costs directly attributed to the production of the product, including raw materials, storage, transportation, and personnel, but excluding non-cash costs, such as overhead and depreciation.

7. **n Factor**

The estimated useful life in years of the equipment that is being evaluated for a use determination.

8. **i Factor**

Year One.

9. **Interest Rate**

10%.

¹ Title 30, Texas Administrative Code, Chapter 17

B. CAP Formula (provided by TCEQ)

$$\text{Partial Use Determination} = \frac{[(PCF \times CCN) - CCO - NPMP]}{CCN}$$

Where:

$$\text{Production Capacity Factor (PCF)} = \frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}}$$

And where:

$$NPMP = \sum_{t=1}^n \frac{MPV - PC}{(1 + \text{Interest Rate})^t}$$

C. CAP Formulas for PC Property

$$\text{Marketable Product Value (MPV)} = \text{Electricity Price (S/MWh)} \times \text{MWh per Year}$$

$$\text{Direct Cost of Production (DCP)} = \text{LCOE} \times \text{MWh per year}$$

$$\text{LCOE} = \frac{\left(\frac{\text{Capital Cost} \times \text{Capital Recovery Factor}}{\text{Hours per Year}} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity}} + \left(\frac{\text{Fuel Cost} \times \text{Heat Rate}}{\text{Factor}} \right)}{\text{Factor}}$$

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

III. Cost Analysis Procedure ("CAP") Calculations for Cottonwood Unit 2 HRSG

A. Marketable Product Value ("MPV")

$$\begin{array}{lclcl} \text{Electricity Price} & \frac{\$}{\text{MWh}} & \times & \frac{\text{Plant MWh}}{\text{Year}} & = & (\$) \text{ MPV} \\ \$35.32 & & \times & \frac{808,493 \text{ MWh}}{\text{Year}} & = & \$28,557,781 \end{array}$$

B. Production Cost ("PC")

$$\begin{array}{lclcl} \text{Levelized Cost of Energy} & \frac{\$}{\text{kWh}} & \times & \frac{\text{Plant kWh}}{\text{Year}} & = & (\$) \text{ PC} \\ (\text{"LCOE"}) & & & & & \\ \$0.0308 & & \times & \frac{808,493,135 \text{ kWh}}{\text{Year}} & = & \$24,853,682 \end{array}$$

Formula:
$$\frac{(\text{PC} \times \text{CCM}) - \text{CCO} - \text{NPVMP}}{\text{CCM}}$$

Net Present Value Marketable Product ("NPVMP") Calculation

$$\begin{array}{lcl} \sum_{t=1}^n \frac{(\$) \text{ MPV}}{(1 + \text{Interest Rate})^t} & = & \boxed{\text{NPVMP } (\$)} \\ \sum_{t=1}^n \frac{\$28,557,781}{(1 + 10\%)^t} & = & \$34,541,145 \end{array}$$

* If MP is ≤ 0, then MP = 0.

Plant:	Calumet Energy Center
Plant Summary:	1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location:	Newton County, Texas
Project:	Tier III Cost Analysis Procedure (CAP) Calculations
Date:	December 2, 2011
Rev:	0

	Production Capacity of Existing Equipment or Process	Production Capacity of New Equipment or Process
1	100	100
2	100	100
3	100	100
4	100	100
5	100	100
6	100	100
7	100	100
8	100	100
9	100	100
10	100	100
11	100	100
12	100	100
13	100	100
14	100	100
15	100	100
16	100	100
17	100	100
18	100	100
19	100	100
20	100	100
21	100	100
22	100	100
23	100	100
24	100	100
25	100	100
26	100	100
27	100	100
28	100	100
29	100	100
30	100	100
31	100	100
32	100	100
33	100	100
34	100	100
35	100	100
36	100	100
37	100	100
38	100	100
39	100	100
40	100	100
41	100	100
42	100	100
43	100	100
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77	100	100
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80	100	100
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83	100	100
84	100	100
85	100	100
86	100	100
87	100	100
88	100	100
89	100	100
90	100	100
91	100	100
92	100	100
93	100	100
94	100	100
95	100	100
96	100	100
97	100	100
98	100	100
99	100	100
100	100	100

$$\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}} = \frac{\text{PCF}}{1,000} \quad \text{a}$$

$$\frac{0}{292 \text{ MW} \times 31.65\%} = \frac{\text{PCF}}{1,000} \quad \text{b}$$

CCN
560,584,465

50

Partial Use Determination Calculation

(PCF x CCN)	CCO	CCN	MF	Partial Use Determination %
1.030 x \$60,584,465	\$0		\$34,541,145	42.95%
		\$60,584,465		
				26.043,320

Use Percent	42.99%
Estimated Dollar Value	\$ 60,584,465

ATTACHMENT B

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1.260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

Levelized Cost of Energy ("LCOE") Model^[1]

Formulas

$$\text{Capital Recovery Factor ("CRF")} = \frac{i \times (1 + i)^n}{(1 + i)^n - 1}$$

$$\text{LCOE} = \left(\frac{\text{Capital Cost} \times \text{CRF}}{\text{Hours per Year} \times \text{Capacity Factor}} + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}} \right) + \left(\text{Fuel Cost} \times \text{Heat Rate} \right)$$

Calculations

Capital Recovery Factor 10.23%

LCOE (\$/kWh) \$ 0.03079

^[1] http://www.nrel.gov/analysis/lcoe_documentation.html

Note: The Levelized Cost of Energy is a calculation developed by the United States Department of Energy's National Renewable Energy Lab to determine the cost of generating energy (electricity) using the design or performance criteria for a specific power generation unit. The website above gives a more detailed description of the model and its development.

ATTACHMENT B

Electricity - PV Calculations

Difference	Period	Interest Rate	PV - Period
\$3,664,099	1	1.10	\$ 3,330,999
\$3,664,099	2	1.21	\$ 3,028,181
\$3,664,099	3	1.331	\$ 2,752,892
\$3,664,099	4	1.4641	\$ 2,502,629
\$3,664,099	5	1.61051	\$ 2,275,117
\$3,664,099	6	1.771561	\$ 2,068,288
\$3,664,099	7	1.9487171	\$ 1,880,262
\$3,664,099	8	2.14358881	\$ 1,709,329
\$3,664,099	9	2.357947691	\$ 1,553,936
\$3,664,099	10	2.59374246	\$ 1,412,669
\$3,664,099	11	2.853116706	\$ 1,284,244
\$3,664,099	12	3.138428377	\$ 1,167,495
\$3,664,099	13	3.452271214	\$ 1,061,359
\$3,664,099	14	3.797498336	\$ 964,872
\$3,664,099	15	4.177248169	\$ 877,156
\$3,664,099	16	4.594972986	\$ 797,415
\$3,664,099	17	5.054470285	\$ 724,922
\$3,664,099	18	5.559917313	\$ 659,020
\$3,664,099	19	6.115909045	\$ 599,109
\$3,664,099	20	6.727499949	\$ 544,645
\$3,664,099	21	7.400249944	\$ 495,132
\$3,664,099	22	8.140274939	\$ 450,120
\$3,664,099	23	8.954302433	\$ 409,200
\$3,664,099	24	9.849732676	\$ 372,000
\$3,664,099	25	10.83470594	\$ 338,182
\$3,664,099	26	11.91817654	\$ 307,438
\$3,664,099	27	13.10999419	\$ 279,489
\$3,664,099	28	14.42099361	\$ 254,081
\$3,664,099	29	15.86309297	\$ 230,983
\$3,664,099	30	17.44940227	\$ 209,984
NPVMP:			\$ 34,541,145

5117

DUFF & PHELPS LLC
ACCOUNTS PAYABLE
300 HEADQUARTERS PLAZA
EAST TOWER, 12TH FLOOR
MORRISTOWN, NJ 07960

2-3/710 IL
CT355

DATE Nov 29, 2011

PAY TO THE ORDER OF TCEQ \$ 2,500.00

Two thousand five hundred

00 DOLLARS

Security Features
Check Back

Bank of America
Chicago, Illinois

[Signature]

FOR

⑈005117⑈ ⑆071000039⑆ 86665⑈08656⑈

DUFF & PHELPS

TCEQ Cashier's Office - MC-214
Building A
12100 Park 35 Circle
Austin, TX 78753

December 2, 2011

Re: Application for Use Determination for Air Pollution Control Property Located at
Cottonwood Energy Center in Newton County, Texas

Enclosed please find one application (the "Application") for property tax exemption for Air Pollution Control Property located at Cottonwood Energy Center (the "Facility") in Newton County, Texas. A copy of the Application has been provided for the appraisal district.

Pursuant to Title 30 of Chapter 17 of the Texas Administrative Code, the Application has been prepared using the Texas Commission on Environmental Quality ("TCEQ") Application for Use Determination for Pollution Control Property. The enclosed application is a Tier III Application. Submission of this Application is required as a process step in the TCEQ's pollution control certification process for tax exemption of certain assets used in pollution control capacities within the Facility. As outlined by the application instructions, the fee for this Tier III Application is \$2,500. Please find enclosed a check for the \$2,500 Tier III Application Fee.

The Application can be summarized as follows:

Property	Description	Estimated Cost
Tier III	Unit 3 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	\$ 26,043,320

Please send one copy of the completed property tax exemption Use Determination to the following address:

Mr. Greg Maxim
Duff & Phelps LLC
919 Congress Avenue, Suite 1450
Austin, TX 78701

Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, TX 78701

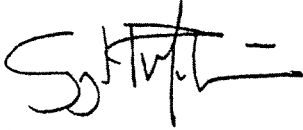
T • 512.671.5580
F • 512.351.7911

gregory.maxim@duffandphelps.com
www.duffandphelps.com

TCEQ Cashier's Office
December 2, 2011
Page 2 of 2

If you have any questions regarding the Application or the information supplied within the Application, please contact me, Greg Maxim, Director, Duff & Phelps LLC, at (512) 671-5580 or by e-mail at gregory.maxim@duffandphelps.com.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Greg Maxim', with a horizontal line extending to the right.

Gregory Maxim
Director
Specialty Tax

Enclosures

cc: Ms. Kathryn Tronsberg Macciocca (Duff & Phelps, LLC)

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease, lease-to-own agreement, or environmental incentive grant? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?
Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is 'Yes', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?
Corporation ☐ Limited Partner ☐ Other: **Limited Liability Corporation**
Sole Proprietor ☐ Utility ☐
Partnership ☐
2. Size of Company: Number of Employees
1 to 99 ☒ 500 to 999 ☐ 2,000 to 4,999 ☐
100 to 499 ☐ 1,000 to 1,999 ☐ 5,000 or more ☐
3. Business Description: (Briefly describe the type of business or activity at the facility)
Natural Gas-Fired Electric Power Generation
4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. **221122 - Electric Power Generation, fossil fuel**

Section 3. Type of Application and Fee

1. Select only one:

Tier I – Fee: \$150 ☐

Tier II – Fee: \$1,000 ☐

Tier III – Fee: \$2,500 ☒

2. Payment Information:

Check/Money Order/Electronic Payment Receipt Number:

Payment Type: Check ☒

Payment Amount: \$2,500

Name on payment: Duff & Phelps

Total Amount: \$2,500

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Cottonwood Energy Company LP

2. Mailing Address: 976 County Road 4213

3. City, State, Zip: Deweyville, TX 77614

4. Customer Number (CN): CN602765687

5. Regulated Entity Number (RN): RN100226109

6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐

If the answer is 'No,' please explain: N/A

7. Is this property/equipment leased from a third party? Yes ☐ No ☒

If the answer is 'Yes,' please explain: N/A

8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐

If the answer is 'No,' please explain: N/A

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name: N/A

2. Mailing Address: N/A

3. City, State, Zip: N/A

4. Customer Number (CN): N/A

5. Regulated Entity Number (RN): N/A

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located:

Cottonwood Energy Center

2. Type of Mfg. Process or Service: **Natural Gas-Fired Electric Power Generation**

3. Street Address: 976 County Road 4213
4. City, State, Zip: Deweyville, TX 77614

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Newton County
2. District Account Number(s): 9900015-0805153

Section 8. Contact Name

1. Company Name: Duff & Phelps, LLC
2. First Name of Contact: Greg
3. Last Name of Contact: Maxim
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title: Director
6. Mailing Address: 919 Congress Avenue, Suite 1450
7. City, State, Zip: Austin, TX 78701
8. Phone Number/Fax Number: (P) 512-671-5580; (F) 512-351-7911
9. Email Address: Gregory.maxim@duffandphelps.com
10. Tracking Number (optional): CC-2012-03

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment:

Unit 3 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems

2. Is the property/equipment used 100% as pollution control equipment? Yes ☐ No ☒
If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: N/A. See Calculation of Percentage of pollution control Property in attached Cost Analysis Procedure ("CAP") Model.
3. Does the property/equipment generate a Marketable Product? Yes ☒ No ☐
If the answer is 'Yes,' describe the marketable product: Electricity
4. What is the appropriate Tier I Table or Expedited Review List number? ERL #8
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

If the answer is 'No,' separate applications must be filed for each piece of property/equipment.

6. List applicable permit number(s) for the property/equipment: Title V Operating Permit O2338

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☐ N/A ☒

If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment? N/A
9. What is the cost of the comparable property/equipment? N/A
10. How was the value of the comparable property/equipment calculated? N/A

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?)

Background: Cottonwood Energy Center

The Cottonwood Energy Center (the "Facility") is a natural gas-fired, combined cycle power generating facility located in Deweyville, Newton County, Texas. Four GE 7-FA combustion turbines are routed to four Foster Wheeler heat recovery steam generators ("HRSGs"), which provide steam to four Alstom steam turbine-generator sets. The Facility began commercial operation in December 2003. It has a base load capacity of 1,260 MW. The Facility serves the SERC Reliability Corporation region.

Pollution Control Property Description – Cottonwood Unit 3 HRSG

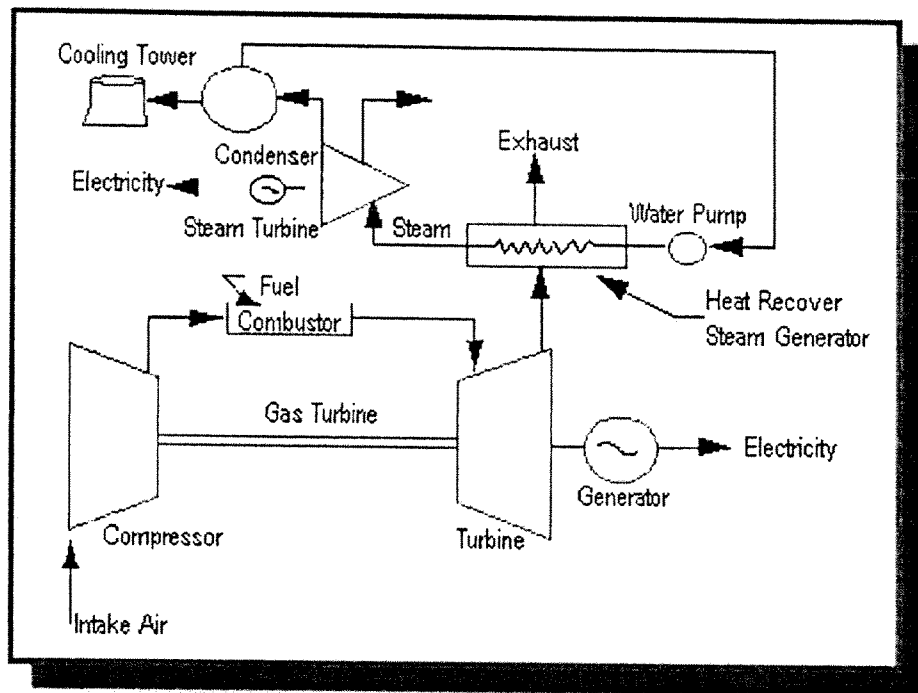
The pollution control property described in this Application is the Unit 3 HRSG and dedicated ancillary system (the "PC Property") installations.

Cottonwood Unit 3 HRSG

The Facility consists of a combined-cycle gas turbine power plant with four (4) gas Combustion Turbines ("CTs") each equipped with HRSGs and dedicated ancillary systems necessary to capture heat from the CTs' exhaust and convert it into electrical power. The Unit 3 HRSG captures the waste heat of combustion from the Unit 3 CT exhaust gas and utilizes this waste heat to produce steam, which in turn powers a steam turbine-generator set to produce electric power at the Facility in addition to the electric power generated by the CT alone.

The Facility gains both production and pollution control benefits from the subject PC Property. First, the use of this waste heat of combustion by the Unit 3 HRSG creates a thermal efficiency benefit for the Facility. Specifically, the use of waste heat in the Unit 3 CT exhaust gas results in the conversion of approximately 50% of the chemical energy of the natural gas utilized at the Facility into electricity (HHV basis), a gain over the use of the fuel by these CTs alone. Secondly, due to this efficiency gain, the Facility is able to generate fewer emissions (particularly NO_x emissions) than a traditional power generation facility utilizing a single thermodynamic cycle; thus supporting the subject PC Property's inclusion on the Expedited Review List.

The Figure below is representative of a simplified combined-cycle plant process flow.



Please see the Cost Analysis Procedure ("CAP") Model attached for the calculation of the percentage of the subject pollution control property eligible for property tax exemption.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level.

The PC Property was installed to meet the requirements of 40 CFR Part 60.44da(a) "Standards for nitrogen oxides ("NOx") for Electric Utility Steam generating units for New Source Performance Standards ("NSPS")".

As well, the PC Property allows emissions to meet or exceed Best Available Control Technology emission limitations established in Federal Operating Permit #O2338. Per 30 Texas Administrative Code ("TAC") §122.143(4), the permit holder must comply with all terms and conditions codified in the permit and any provisional terms and conditions required to be included with the permit.

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment?

The PC Property reduces the formation of and/or controls the emission of NO_x and other air emissions associated with the combustion of natural gas used in combined cycle power generation at the Facility.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Please see the simplified Process Flow Diagram above for a representation of the combined-cycle power plant.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Please see the attachment to this application for the Cost Analysis Procedure ("CAP") Calculations.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	N/A	42.99%	\$ 60,584,465
Property:			
Property:			
Total:			\$ 26,043,320

Attach additional response sheets to the application if more than three (3) pieces.

NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

Section 13. Certification Signature

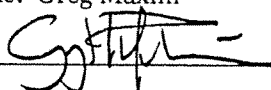
Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Greg Maxim

Date: 12/2/2011

Signature: _____



Title: Director

Company Name: Duff & Phelps, LLC

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to \$2,000, or a prison term of two to 10 years and a fine of up to \$5,000.

Topic/Prep: Cottonwood Energy Company, LP
Plant Name: Cottonwood Energy Center
Plant Summary: 1,250 MW gas Configuration Combined Cycle Power Plant (2003)
Plant Location: Tarrant County, Texas
Prepared By: Dan H. Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

Source Legend	
C	Calculated Assumption
D&P	D&P VAS Standard Estimate
CW	Cottonwood Client-Provided Data
HH	Henry Hub Natural Gas Pricing
30 TAC	30 TAC Chapter 17

I. Assumptions

Plant Design Profile		Conversion Factors		Economic Assumptions		Levelized Cost of Energy ("LCOE") Model Outputs*	
PC Property	Source	Hour/Year	Source	Discount Rate	Source	Capital Recovery Factor (CRF)	LCOE (\$/MWh)
PC Property Capital Cost	CW	8,750	1,000	Periods	D&P	10.23%	0.03879
PC Property Capacity (MW)	C	2.20	2.20	PC Property Fixed O&M Cost (\$/MWh)	CW		
PC Property Net Annual Generation Capacity (MW)	CW	3,400	3,400	Fuel Costs (\$/MMBtu)	HH		
PC Property Net Annual Generation Capacity (MW)	C	1,000,000	1,000,000	PC Property Variable Cost (\$/MWh)	CW		
Plant Capacity Factor	C			PC Property Variable Cost (\$/MWh) ¹	C		
Plant Heat Rate (Btu/kWh)	CW			SERC Electricity Pricing (\$/MWh) ²	SNL		
Plant Heat Rate (MMBtu/kWh)	C			Interest Rate	10%		
Capital Cost OM ("CCO")							
Comparable Technology Cost	\$						
Design Capacity Factor	\$						
Capacity (MW)	0%						
	1						

*Three-year average (only historical electricity rates for SERC Retireable Corporation).

ATTACHMENT B

Taxpayer: Cottonwood Energy Company, LP
 Plant: Cottonwood Energy Center
 Plant Summary: 1,260 MW and Configuration Combined Cycle Power Plant (2003)
 Plant Location: Newton County, Texas
 Project: Tier III Cost Analysis Procedure ("CAP") Calculations
 Date: December 2, 2011
 Rev: 0

II. Cost Analysis Procedure ("CAP")

Formula:
$$\frac{(PCF \times CCN) - CCO - MPV}{CCN}$$

A. Definitions (provided by TCEQ)¹⁴

1. Production Capacity Factor ("PCF")

The ratio of the capacity of the existing equipment or process to the capacity of the new equipment or process.

2. Capital Cost New ("CCN")

CCN is the estimated total capital cost of the new equipment or process.

3. Capital Cost Old ("CCO")

CCO is the cost of comparable equipment or a comparable process without the pollution control.

The standards for calculating CCO are

- 3.1 If comparable equipment without the pollution control feature is on the market in the U.S., then use the average market price of the most recent generation of technology must be used.
- 3.2 If the conditions in variable 3.1 do not apply and the company is replacing an existing unit that already has received a positive use determination, the company shall use the CCO from the application for the previous use determination.
- 3.3 If the conditions in variable 3.1 and 3.2 do not apply and the company is replacing an existing unit, then the company shall convert the original cost of the unit to today's dollars by using a published industry specific standard. If the production capacity of the new equipment or process is lower than the production capacity of the old equipment or process CCO is divided by the PCF to adjust CCO to reflect the same capacity as CCN.
- 3.4 If the conditions in variables 3.1, 3.2 and 3.3 do not apply, and the company can obtain an estimate to manufacture the alternative equipment without the pollution control feature, then an average estimated cost to manufacture the unit must be used. The comparable unit must be the most recent generation of technology. A copy of the estimate must be provided with the worksheet including the specific source of the information.

4. Marketable Product ("MP")

Anything produced or recovered using pollution control property that is sold as a product, is accumulated for later use, or is used as raw material in a manufacturing process. Marketable product includes, but is not limited to, anything recovered or produced using the pollution control property sold, traded, accumulated for later use, or used in a manufacturing process (including at a different facility). Marketable product does not include any emission credits or emission allowances that result from installation of the pollution control property.

5. Marketable Product Value ("MPV")

The marketable product value may be calculated in one of two ways

1. The retail value of the product produced by the equipment for one year periods. Typically, the most recent three-year average price of the material as sold on the market should be used in the calculation. If the price varies from state-to-state, the applicant shall calculate an average and explain how the figures were determined.
2. If the material is used as an intermediate material in a production process, then the value assigned to the material for internal accounting purposes may be used. It is the responsibility of the applicant to show that the internally assigned value is comparable to the value assigned by other similar producers of the product.

6. Direct Costs of Production ("DCP")

The costs directly attributed to the production of the product, including raw materials, storage, transportation, and personnel, but excluding non-cash costs, such as overhead and depreciation.

7. n Factor

The estimated useful life in years of the equipment that is being evaluated for a use determination.

8. i Factor

Year One.

9. Interest Rate

10%

10. Title 30, Texas Administrative Code Chapter 17

B. CAP Formulas (provided by TCEQ)

Partial Use Determination =
$$\frac{(PCF \times CCN) - CCO - MPV}{CCN}$$

Where:

Production Capacity Factor ("PCF")

=
$$\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}}$$

And where:

MPV =
$$\sum_{t=1}^n \frac{MPV_t \cdot PC}{(1 + \text{Interest Rate})^t}$$

C. CAP Formulas for PC Property

Marketable Product Value ("MPV")

= Electricity Price (\$/MWh) x MWh per Year

Direct Cost of Production ("DCP")

= LCOE x MWh per year

LCOE

=
$$\left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \frac{\text{Capital Recovery Factor}}{\text{Capacity}} \right) + \left(\frac{\text{Fixed O\&M Costs}}{\text{Capacity}} \times \left(\frac{\text{Fuel Cost}}{\text{Heat Rate}} \right) \right)$$

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: C

III. Cost Analysis Procedure ("CAP") Calculations for Cottonwood Unit 3 HRSG

A. Marketable Product Value ("MPV")

$$\begin{array}{lcl} \text{Electricity Price} & \frac{\$}{\text{MWh}} \times \frac{\text{Plant MWh}}{\text{Year}} & = \text{(\$) MPV} \\ \$35.32 & \times \frac{808,493 \text{ MWh}}{\text{Year}} & = \$28,557,781 \end{array}$$

B. Production Cost ("PC")

$$\begin{array}{lcl} \text{Levelized Cost of Energy ("LCOE")} & \frac{\$}{\text{MWh}} \times \frac{\text{Plant MWh}}{\text{Year}} & = \text{(\$) PC} \\ \$0.0308 & \times \frac{808,493,135 \text{ MWh}}{\text{Year}} & = \$24,893,682 \end{array}$$

$$\text{Formula: } \frac{[\text{PCF} \times \text{CCN}] - \text{CCO} - \text{NPVMP}}{\text{CCN}}$$

Net Present Value Marketable Product ("NPVMP") Calculation

$$\begin{array}{lcl} \sum_{t=1}^n \frac{(\$) \text{ MPV}}{(1 + \text{Interest Rate})^t} & - & \frac{(\$) \text{ PC}}{(1 + 10\%)^t} \\ = & & = \end{array}$$

$$\begin{array}{lcl} \sum_{t=1}^n \frac{\$28,557,781}{(1 + 10\%)^t} & - & \frac{\$24,893,682}{(1 + 10\%)^t} \\ = & & = \end{array}$$

NPVMP (\$)

NPVMP
\$34,541,145

* If MP is ≤ 0 then MP = 0.

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,200 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

C. Production Capacity Factor ("PCF")

$$\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}} = \text{PCF}$$

$$\frac{0}{292 \text{ MW} \times 31.65\%} = 1,000$$

D. Capital Cost New ("CCN")
PC Property

$$= \$60,584,465$$

E. Capital Cost Old ("CCO")
Comparable Technology

$$= \$0$$

Partial Use Determination Calculation

PCF x CCN	CCO	CCN	MP	Partial Use Determination %
1,000 x \$60,584,465	\$0	\$60,584,465	\$34,541,145	42.96%
				\$ 25,043,320

TCO Use Determination Application Section 12 Use	42.99%
Partial Use Percent	60,584,465
Estimated Dollar Value	\$

Eligible HRS Costs
(Partial Use Determination % x PC Property Cost)

ATTACHMENT B

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

Levelized Cost of Energy ("LCOE") Model⁽¹⁾

Formulas

$$\text{Capital Recovery Factor ("CRF")} = \frac{i \times (1 + i)^n}{(1 + i)^n - 1}$$

$$LCOE = \left(\frac{\text{Capital Cost} \times \text{CRF}}{\text{Hours per Year} \times \text{Capacity Factor}} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate} \right)$$

Calculations

Capital Recovery Factor 10.23%

LCOE (\$/kWh) \$ 0.03079

⁽¹⁾ http://www.nrel.gov/analysis/lcoe_documentation.html

Note: The Levelized Cost of Energy is a calculation developed by the United States Department of Energy's National Renewable Energy Lab to determine the cost of generating energy (electricity) using the design or performance criteria for a specific power generation unit. The website above gives a more detailed description of the model and its development.

ATTACHMENT B

Electricity - PV Calculations

Difference	Period	Interest Rate	PV - Period
\$3,664,099	1	1.10	\$ 3,330,999
\$3,664,099	2	1.21	\$ 3,028,181
\$3,664,099	3	1.331	\$ 2,752,892
\$3,664,099	4	1.4641	\$ 2,502,629
\$3,664,099	5	1.61051	\$ 2,275,117
\$3,664,099	6	1.771561	\$ 2,068,288
\$3,664,099	7	1.9487171	\$ 1,880,262
\$3,664,099	8	2.14358881	\$ 1,709,329
\$3,664,099	9	2.357947691	\$ 1,553,936
\$3,664,099	10	2.59374246	\$ 1,412,669
\$3,664,099	11	2.853116706	\$ 1,284,244
\$3,664,099	12	3.138428377	\$ 1,167,495
\$3,664,099	13	3.452271214	\$ 1,061,359
\$3,664,099	14	3.797498336	\$ 964,872
\$3,664,099	15	4.177248169	\$ 877,156
\$3,664,099	16	4.594972986	\$ 797,415
\$3,664,099	17	5.054470285	\$ 724,922
\$3,664,099	18	5.559917313	\$ 659,020
\$3,664,099	19	6.115909045	\$ 599,109
\$3,664,099	20	6.727499949	\$ 544,645
\$3,664,099	21	7.400249944	\$ 495,132
\$3,664,099	22	8.140274939	\$ 450,120
\$3,664,099	23	8.954302433	\$ 409,200
\$3,664,099	24	9.849732676	\$ 372,000
\$3,664,099	25	10.83470594	\$ 338,182
\$3,664,099	26	11.91817654	\$ 307,438
\$3,664,099	27	13.10999419	\$ 279,489
\$3,664,099	28	14.42099361	\$ 254,081
\$3,664,099	29	15.86309297	\$ 230,983
\$3,664,099	30	17.44940227	\$ 209,984
NPVMP:			\$ 34,541,145

DUFF & PHELPS LLC
ACCOUNTS PAYABLE

300 HEADQUARTERS PLAZA
EAST TOWER, 12TH FLOOR
MORRISTOWN, NJ 07960

5118

2-3710 IL
CT355

DATE

Nov 29, 2011

PAY
TO THE
ORDER OF

TCEQ

\$ 2,500.00

Two thousand five hundred

DOLLARS



Bank of America



Chicago, Illinois

FOR

[Signature]

⑆005118⑆ ⑆071000039⑆ 86665⑉08656⑈

DUFF & PHELPS

TCEQ Cashier's Office - MC-214
Building A
12100 Park 35 Circle
Austin, TX 78753

December 2, 2011

Re: Application for Use Determination for Air Pollution Control Property Located at
Cottonwood Energy Center in Newton County, Texas

Enclosed please find one application (the "Application") for property tax exemption for Air Pollution Control Property located at Cottonwood Energy Center (the "Facility") in Newton County, Texas. A copy of the Application has been provided for the appraisal district.

Pursuant to Title 30 of Chapter 17 of the Texas Administrative Code, the Application has been prepared using the Texas Commission on Environmental Quality ("TCEQ") Application for Use Determination for Pollution Control Property. The enclosed application is a Tier III Application. Submission of this Application is required as a process step in the TCEQ's pollution control certification process for tax exemption of certain assets used in pollution control capacities within the Facility. As outlined by the application instructions, the fee for this Tier III Application is \$2,500. Please find enclosed a check for the \$2,500 Tier III Application Fee.

The Application can be summarized as follows:

Property	Description	Estimated Cost
Tier III	Unit 4 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	\$ 26,043,320

Please send one copy of the completed property tax exemption Use Determination to the following address:

Mr. Greg Maxim
Duff & Phelps LLC
919 Congress Avenue, Suite 1450
Austin, TX 78701

Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, TX 78701

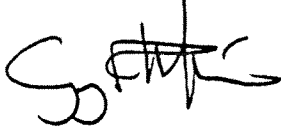
T +1 512 671 5580
F +1 512 351 7911

gregory.maxim@duffandphelps.com
www.duffandphelps.com

TCEQ Cashier's Office
December 2, 2011
Page 2 of 2

If you have any questions regarding the Application or the information supplied within the Application, please contact me, Greg Maxim, Director, Duff & Phelps LLC, at (512) 671-5580 or by e-mail at gregory.maxim@duffandphelps.com.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Greg Maxim', with a stylized flourish at the end.

Gregory Maxim
Director
Specialty Tax

Enclosures

cc: Ms. Kathryn Tronsberg Macciocca (Duff & Phelps, LLC)

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease, lease-to-own agreement, or environmental incentive grant? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?
Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is 'Yes', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?
Corporation ☐ Limited Partner ☐ Other: **Limited Liability Corporation**
Sole Proprietor ☐ Utility ☐
Partnership ☐
2. Size of Company: Number of Employees
1 to 99 ☒ 500 to 999 ☐ 2,000 to 4,999 ☐
100 to 499 ☐ 1,000 to 1,999 ☐ 5,000 or more ☐
3. Business Description: (Briefly describe the type of business or activity at the facility)
Natural Gas-Fired Electric Power Generation
4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. **221122 - Electric Power Generation, fossil fuel**

Section 3. Type of Application and Fee

1. Select only one:

Tier I – Fee: \$150 ☐

Tier II – Fee: \$1,000 ☐

Tier III – Fee: \$2,500 ☒

2. Payment Information:

Check/Money Order/Electronic Payment Receipt Number:

Payment Type: Check 5119

Payment Amount: \$2,500

Name on payment: Duff & Phelps

Total Amount: \$2,500

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Cottonwood Energy Company LP

2. Mailing Address: 976 County Road 4213

3. City, State, Zip: Deweyville, TX 77614

4. Customer Number (CN): CN602765687

5. Regulated Entity Number (RN): RN100226109

6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐

If the answer is 'No,' please explain: N/A

7. Is this property/equipment leased from a third party? Yes ☐ No ☒

If the answer is 'Yes,' please explain: N/A

8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐

If the answer is 'No,' please explain: N/A

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name: N/A

2. Mailing Address: N/A

3. City, State, Zip: N/A

4. Customer Number (CN): N/A

5. Regulated Entity Number (RN): N/A

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located:

Cottonwood Energy Center

2. Type of Mfg. Process or Service: **Natural Gas-Fired Electric Power Generation**

3. Street Address: 976 County Road 4213
4. City, State, Zip: Deweyville, TX 77614

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Newton County
2. District Account Number(s): 9900015-0805153

Section 8. Contact Name

1. Company Name: Duff & Phelps, LLC
2. First Name of Contact: Greg
3. Last Name of Contact: Maxim
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title: Director
6. Mailing Address: 919 Congress Avenue, Suite 1450
7. City, State, Zip: Austin, TX 78701
8. Phone Number/Fax Number: (P) 512-671-5580; (F) 512-351-7911
9. Email Address: Gregory.maxim@duffandphelps.com
10. Tracking Number (optional): CC-2012-04

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment:
Unit 4 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems
2. Is the property/equipment used 100% as pollution control equipment? Yes ☐ No ☒
If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: N/A. See Calculation of Percentage of pollution control Property in attached Cost Analysis Procedure ("CAP") Model.
3. Does the property/equipment generate a Marketable Product? Yes ☒ No ☐
If the answer is 'Yes,' describe the marketable product: Electricity
4. What is the appropriate Tier I Table or Expedited Review List number? ERL #8
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

If the answer is 'No,' separate applications must be filed for each piece of property/equipment.

6. List applicable permit number(s) for the property/equipment: Title V Operating Permit O2338

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☐ N/A ☒

If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment? N/A
9. What is the cost of the comparable property/equipment? N/A
10. How was the value of the comparable property/equipment calculated? N/A

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?)

Background: Cottonwood Energy Center

The Cottonwood Energy Center (the "Facility") is a natural gas-fired, combined cycle power generating facility located in Deweyville, Newton County, Texas. Four GE 7-FA combustion turbines are routed to four Foster Wheeler heat recovery steam generators ("HRSGs"), which provide steam to four Alstom steam turbine-generator sets. The Facility began commercial operation in December 2003. It has a base load capacity of 1,260 MW. The Facility serves the SERC Reliability Corporation region.

Pollution Control Property Description – Cottonwood Unit 4 HRSG

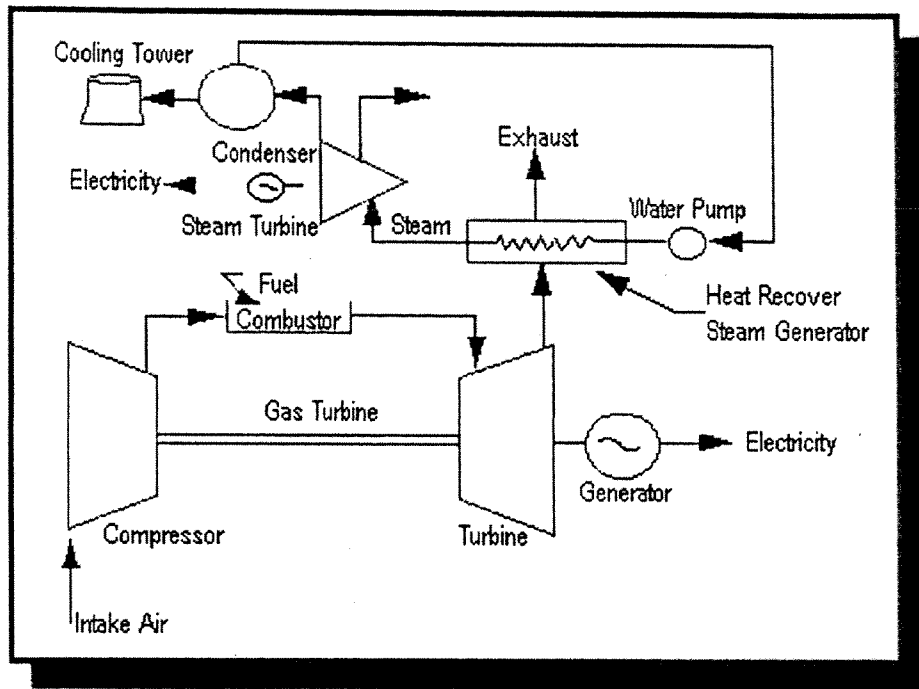
The pollution control property described in this Application is the Unit 4 HRSG and dedicated ancillary system (the "PC Property") installations.

Cottonwood Unit 4 HRSG

The Facility consists of a combined-cycle gas turbine power plant with four (4) gas Combustion Turbines ("CTs") each equipped with HRSGs and dedicated ancillary systems necessary to capture heat from the CTs' exhaust and convert it into electrical power. The Unit 4 HRSG captures the waste heat of combustion from the Unit 4 CT exhaust gas and utilizes this waste heat to produce steam, which in turn powers a steam turbine-generator set to produce electric power at the Facility in addition to the electric power generated by the CT alone.

The Facility gains both production and pollution control benefits from the subject PC Property. First, the use of this waste heat of combustion by the Unit 4 HRSG creates a thermal efficiency benefit for the Facility. Specifically, the use of waste heat in the Unit 4 CT exhaust gas results in the conversion of approximately 50% of the chemical energy of the natural gas utilized at the Facility into electricity (HHV basis), a gain over the use of the fuel by these CTs alone. Secondly, due to this efficiency gain, the Facility is able to generate fewer emissions (particularly NO_x emissions) than a traditional power generation facility utilizing a single thermodynamic cycle; thus supporting the subject PC Property's inclusion on the Expedited Review List.

The Figure below is representative of a simplified combined-cycle plant process flow.



Please see the Cost Analysis Procedure ("CAP") Model attached for the calculation of the percentage of the subject pollution control property eligible for property tax exemption.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level.

The PC Property was installed to meet the requirements of 40 CFR Part 60.44da(a) "Standards for nitrogen oxides ("NOx") for Electric Utility Steam generating units for New Source Performance Standards ("NSPS")".

As well, the PC Property allows emissions to meet or exceed Best Available Control Technology emission limitations established in Federal Operating Permit #O2338. Per 30 Texas Administrative Code ("TAC") §122.143(4), the permit holder must comply with all terms and conditions codified in the permit and any provisional terms and conditions required to be included with the permit.

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment?

The PC Property reduces the formation of and/or controls the emission of NO_x and other air emissions associated with the combustion of natural gas used in combined cycle power generation at the Facility.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Please see the simplified Process Flow Diagram above for a representation of the combined-cycle power plant.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Please see the attachment to this application for the Cost Analysis Procedure ("CAP") Calculations.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	N/A	42.99%	\$ 60,584,465
Property:			
Property:			
Total:			\$ 26,043,320

Attach additional response sheets to the application if more than three (3) pieces.

NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

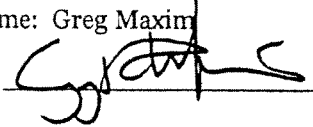
Section 13. Certification Signature

Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Greg Maxim

Date: 12/2/2011

Signature: _____

Title: Director

Company Name: Duff & Phelps, LLC

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to \$2,000, or a prison term of two to 10 years and a fine of up to \$5,000.

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: The III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

Source Legend	
C	Calculated Assumption
DAP	DAP VAS Standard Estimate
CW	Cottonwood Client-Provided Data
HH	Henry Hub Natural Gas Pricing
30 TAC	30 TAC Chapter 17

I. Assumptions

Plant Design Profile

PC Property					Source
PC Property Capital Cost (\$MW)	\$	80,564,465			CW
PC Property Capacity (MW)	\$	208			C
PC Property Net Annual Generation Capacity (kWh)		292			CW
PC Property Net Annual Generation Capacity (MMWh)		808,493,135			C
Plant Capacity Factor		31.65%			CW
Plant Heat Rate (Btu/kWh)		7,503			CW
Plant Heat Rate (MMBtu/kWh)		0.01			C

Capital Cost Old ("CCO")		
Comparable Technology Cost	\$	-
Design Capacity Factor	\$	0%
Capacity ("MW")		1

Economic Assumptions

Discount Rate	10.0%	Source
Periods	40	DAP
PC Property Fixed O&M Cost (\$/MWh-yr)	\$ 4.53	CW
Fuel Cost (\$/MMBtu)	\$ 2.80	HH
PC Property Variable Cost (\$/MWh)	\$ 0.48	CW
PC Property Variable Cost (\$/MWh)	\$ 0.00	C
SERC Electricity Pricing (\$/MWh) ¹⁾	\$ 35.32	SNL
Interest Rate	10%	30 TAC

Levelized Cost of Energy ("LCOE") Model Outputs*

Capital Recovery Factor ("CRF")	\$	10.23%
LCOE (\$/MWh)		0.03079

*See Levelized Cost of Energy report in Attachment A

¹⁾ Three-year average daily historical electricity rates for SERC Reliability Corporation.

Taxpayer: Cottonwood Energy Company, LP
 Plant: Cottonwood Energy Center
 Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
 Plant Location: Newton County, Texas
 Project: Tier III Cost Analysis Procedure ("CAP") Calculations
 Date: December 2, 2011
 Rev: 0

II. Cost Analysis Procedure ("CAP")

$$\text{Formula: } \frac{[(PCF \times CCN) - CCO - MPV]}{CCN}$$

A. Definitions (provided by TCEQ)⁽¹⁾

1. Production Capacity Factor ("PCF")
 The ratio of the capacity of the existing equipment or process to the capacity of the new equipment or process.

2. Capital Cost New ("CCN")
 CCN is the estimated total capital cost of the new equipment or process.

3. Capital Cost Old ("CCO")
 CCO is the cost of comparable equipment or a comparable process without the pollution control.

The standards for calculating CCO are:

3.1. If comparable equipment without the pollution control feature is on the market in the U.S., then use the average market price of the most recent generation of technology must be used.

3.2. If the conditions in variable 3.1 do not apply and the company is replacing an existing unit that already has received a positive use determination, the company shall use the CCO from the application for the previous use determination.

3.3. If the conditions in variable 3.1 and 3.2 do not apply and the company is replacing an existing unit, then the company shall convert the original cost of the unit to today's dollars by using a published industry specific standard. If the production capacity of the new equipment or process is lower than the production capacity of the old equipment or process CCO is divided by the PCF to adjust CCO to reflect the same capacity as CCN.

3.4. If the conditions in variables 3.1, 3.2 and 3.3 do not apply, and the company can obtain an estimate to manufacture the alternative equipment without the pollution control feature, then an average estimated cost to manufacture the unit must be used. The comparable unit must be the most recent generation of technology. A copy of the estimate must be provided with the worksheet including the specific source of the information.

4. Marketable Product ("MP")

Anything produced or recovered using pollution control property that is sold as a product, is accumulated for later use or is used as raw material in a manufacturing process. Marketable product includes, but is not limited to, anything recovered or produced using the pollution control property sold, traded, accumulated for later use or used in a manufacturing process (including at a different facility). Marketable product does not include any emission credits or emission allowances that result from installation of the pollution control property.

5. Marketable Product Value ("MPV")

The marketable product value may be calculated in one of two ways:

1. The retail value of the product produced by the equipment for one year periods. Typically, the most recent three-year average price of the material as sold on the market should be used in the calculation. If the price varies from state-to-state, the applicant shall calculate an average and explain how the figures were determined.

2. If the material is used as an intermediate material in a production process, then the value assigned to the material for internal accounting purposes may be used. It is the responsibility of the applicant to show that the internally assigned value is comparable to the value assigned by other similar producers of the product.

6. Direct Costs of Production ("DCP")

The costs directly attributed to the production of the product, including raw materials, storage, transportation, and personnel, but excluding non-cash costs, such as overhead and depreciation.

7. n Factor

The estimated useful life in years of the equipment that is being evaluated for a use determination.

8. t Factor

Year One.

9. Interest Rate

10%.

PA Title 30, Texas Administrative Code, Chapter 17

B. CAP Formulas (provided by TCEQ)

$$\text{Partial Use Determination} = \frac{[(PCF \times CCN) - CCO - NPVMP]}{CCN}$$

Where:

$$\text{Production Capacity Factor ("PCF")} = \frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}}$$

And where:

$$NPVMP = \sum_{t=1}^n \frac{MPV_t - PC}{(1 + \text{Interest Rate})^t}$$

C. CAP Formulas for PC Property

$$\text{Marketable Product Value ("MPV")} = \text{Electricity Price (\$/MWh)} \times \text{MWh per Year}$$

$$\text{Direct Cost of Production ("DCP")} = \text{LCOE} \times \text{kWh per year}$$

$$\text{LCOE} = \left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \frac{\text{Capital Recovery Factor}}{\text{Factor}} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity}} + \left(\frac{\text{Fuel Cost}}{\text{Rate}} \times \text{Heat Rate} \right)$$

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure (CAP) Calculations
Date: December 2, 2011
Rev: 0

III. Cost Analysis Procedure ("CAP") Calculations for Cottonwood Unit 4 HRSG

A. Marketable Product Value ("MPV")

$$\begin{array}{rcl}
 \text{Electricity Price} & \frac{\$}{\text{MWh}} \times \frac{\text{Plant MWh}}{\text{Year}} & = \quad (\$) \text{ MPV} \\
 35.32 & \frac{\$}{\text{MWh}} \times 808,493 \frac{\text{MWh}}{\text{Year}} & = \quad \$28,557,781
 \end{array}$$

B. Production Cost ("PC")

$$\begin{array}{rcl}
 \text{Levelized Cost of Energy} & \frac{\$}{\text{kWh}} \times \frac{\text{Plant kWh}}{\text{Year}} & = \quad (\$) \text{ PC} \\
 \text{("LCOE")} & & \\
 0.0308 & \frac{\$}{\text{kWh}} \times 808,493,135 \frac{\text{kWh}}{\text{Year}} & = \quad \$24,893,682
 \end{array}$$

$$\text{Formula: } \frac{(\text{PCF} \times \text{CCN}) - \text{CCO} - \text{NPVMP}}{\text{CCN}}$$

Net Present Value Marketable Product ("NPVMP") Calculation

$$\begin{array}{rcl}
 \sum_{t=1}^n \frac{(\$) \text{ MPV}}{(1 + \text{Interest Rate})^t} & = & \text{NPVMP} (\$) \\
 \sum_{t=1}^n \frac{\$28,557,781}{(1 + 10\%)^t} & = & \$34,541,145
 \end{array}$$

* If MP is ≤ 0 , then MP = 0

Taxpayer: Cottonwood Energy Company, LP
 Plant: Cottonwood Energy Center
 Plant Summary: 1,280 MW 4x4 Configuration Combined Cycle Power Plant (2003)
 Plant Location: Newton County, Texas
 Project: Tier III Cost Analysis Procedure (CAP) Calculations
 Date: December 2, 2011
 Rev: 0

C. Production Capacity Factor ("PCF")

$$\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}} = \text{PCF}$$

$$\frac{0}{292 \text{ MW} \times 31.65\%} = 1000$$

D. Capital Cost New ("CCN")
PC Property

\$60,584,465

E. Capital Cost Old ("CCO")
Comparable Technology

\$0

Partial Use Determination Calculation

(PCF x CCN)	CCO	MP	Partial Use Determination %
1,000 x \$60,584,465	\$0	\$34,541,145	42.99%
\$60,584,465			
			\$ 26,043,320

TCEQ Use Determination Application Section 12, use	
Use Percent	42.99%
Estimated Dollar Value	\$ 60,584,465

ATTACHMENT B

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: December 2, 2011
Rev: 0

Levelized Cost of Energy ("LCOE") Model^[1]

Formulas

$$\text{Capital Recovery Factor ("CRF")} = \frac{i \times (1 + i)^n}{(1 + i)^n - 1}$$

$$\text{LCOE} = \left(\frac{\text{Capital Cost} \times \text{CRF}}{\text{Hours per Year} \times \text{Capacity Factor}} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate} \right)$$

Calculations

Capital Recovery Factor 10.23%

LCOE (\$/kWh) \$ 0.03079

^[1] http://www.nrel.gov/analysis/lcoe_documentation.html

Note: The Levelized Cost of Energy is a calculation developed by the United States Department of Energy's National Renewable Energy Lab to determine the cost of generating energy (electricity) using the design or performance criteria for a specific power generation unit. The website above gives a more detailed description of the model and its development.

ATTACHMENT B

Electricity - PV Calculations

Difference	Period	Interest Rate	PV - Period
\$3,664,099	1	1.10	\$ 3,330,999
\$3,664,099	2	1.21	\$ 3,028,181
\$3,664,099	3	1.331	\$ 2,752,892
\$3,664,099	4	1.4641	\$ 2,502,629
\$3,664,099	5	1.61051	\$ 2,275,117
\$3,664,099	6	1.771561	\$ 2,068,288
\$3,664,099	7	1.9487171	\$ 1,880,262
\$3,664,099	8	2.14358881	\$ 1,709,329
\$3,664,099	9	2.357947691	\$ 1,553,936
\$3,664,099	10	2.59374246	\$ 1,412,669
\$3,664,099	11	2.853116706	\$ 1,284,244
\$3,664,099	12	3.138428377	\$ 1,167,495
\$3,664,099	13	3.452271214	\$ 1,061,359
\$3,664,099	14	3.797498336	\$ 964,872
\$3,664,099	15	4.177248169	\$ 877,156
\$3,664,099	16	4.594972986	\$ 797,415
\$3,664,099	17	5.054470285	\$ 724,922
\$3,664,099	18	5.559917313	\$ 659,020
\$3,664,099	19	6.115909045	\$ 599,109
\$3,664,099	20	6.727499949	\$ 544,645
\$3,664,099	21	7.400249944	\$ 495,132
\$3,664,099	22	8.140274939	\$ 450,120
\$3,664,099	23	8.954302433	\$ 409,200
\$3,664,099	24	9.849732676	\$ 372,000
\$3,664,099	25	10.83470594	\$ 338,182
\$3,664,099	26	11.91817654	\$ 307,438
\$3,664,099	27	13.10999419	\$ 279,489
\$3,664,099	28	14.42099361	\$ 254,081
\$3,664,099	29	15.86309297	\$ 230,983
\$3,664,099	30	17.44940227	\$ 209,984
NPVMP:			\$ 34,541,145

**DUFF & PHELPS LLC
ACCOUNTS PAYABLE**

300 HEADQUARTERS PLAZA
EAST TOWER, 12TH FLOOR
MORRISTOWN, NJ 07980

5119

2-3710 4
CT355

DATE Nov 29 2011

PAY
TO THE
ORDER OF

TCEO

\$ 2,500.00

Two thousand five hundred

_____ DOLLARS

 Security
Features
Included

Bank of America



Chicago, Illinois

[Signature]

FOR _____

⑆005119⑆ ⑆071000039⑆ 86665⑉08656⑈

Attachment 5



RICHARD L. "RICK" HARDCASTLE
HOUSE OF REPRESENTATIVES

November 1, 2007

Ms. Kristin Smith
Office of Legal Services, MC 205
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin TX 78753

Via Facsimile

Re: Rule Project Number 2007-055-017-AS

Dear Ms. Smith:

I am writing to provide my comments on the proposed TCEQ rules in the above-referenced rule docket which, in part, involves the implementation of HB 3732. As the author of HB 3732, I support the rules as proposed in the October 3, 2007, Texas Register and commend the TCEQ staff on a job well done in implementing the letter and intent of the Prop. 2 program and the changes to that program passed by HB 3732.

Attached are two letters that I have previously written that relate to issues still under consideration in your rulemaking. The first letter (Attachment 1) was sent to the TCEQ staff and Commissioners on August 1, 2007, in order to address some questions that had been raised at that time regarding the intended scope and applicability of HB 3732. Since that time, some additional questions have been asked and formally posed in both the preamble to the proposed rule and in an opinion request that was submitted by the TCEQ Chairman to the Attorney General of Texas. The second letter (Attachment 2) was sent to the Attorney General on October 31, 2007, in response to the TCEQ Chairman's opinion request.

Together, the two attached letters reflect my views on several of the issues that are still before the Commission in this rulemaking and I include the comments made in those letters in this letter by reference to avoid repetition.

Again, I appreciate your efforts to timely implement HB 3732 and, if I can be of any assistance to you, please don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick Hardcastle".
Representative Rick Hardcastle

RH/mw

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AUSTIN, TX 78768-2910
(512) 463-0526

DISTRICT OFFICE:
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VERNON, TX 76384
(940) 553-3825

11/01/07 THU 15:43 [TX/RX NO 5236]



RICHARD L. "RICK" HARDCASTLE
HOUSE OF REPRESENTATIVES

ATTACHMENT 1

August 1, 2007

Ms. Grace Montgomery Faulkner
Deputy Director, Administrative Services
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Ms. Faulkner,

It has come to my attention that questions have arisen about the legislative intent of Section 4 of HB 3732 which amends Section 11.31 of the Tax Code (commonly referred to as the "Prop. 2" or the "pollution control property" tax exemption). As the House author of the bill, I have a few things I would like to clarify regarding the intent and scope of that part of the bill.

1. Scope of Bill and Possible Impact on Industries Other than Electric Power Generation

The reason I filed HB 3732 was to help ensure that Texas continues to maintain and build power plants that are as clean as possible, but still capable of using a diverse range of affordable feedstocks such as coal, biomass, petroleum coke, and solid waste. Helping electricity remain affordable is an important aspect of the bill along with the obvious environmental protection goals of the bill. With that overall intent in mind, we focused the equipment list contained in Sections 4 and 5 of the bill on electric generation projects.

HB 3732 clarifies, but does not alter, the TCEQ's underlying legal authority under the Prop. 2 program. While I was focused on electric generation in filing HB 3732, I am aware that TCEQ has always had the authority (since 1994) under the Prop. 2 program to add items to the predetermined equipment list (PEL), including equipment that resembles equipment included on the HB 3732 list that are used in industries other than the electric generation industry. It was not my intent to alter that authority with this legislation. Nor does this legislation change the fundamental requirement of the Prop. 2 program - that equipment needs to control pollution, in whole or in part, in order to be eligible for a full or partial exemption.

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11/01/07 THU 15:43 [TX/RX NO 5236]

An extreme example of a potential misinterpretation would be to interpret item No. 1 on the list ("coal cleaning or refining facilities") as an exemption for an entire oil refinery. Such an interpretation is entirely without merit given the context of the statute and flies in the face of the bill's fundamental purpose. The "refining" word was added to the bill to clarify that, in addition to coal cleaning, the bill would encourage folks to "refine" coal before it is used. I became aware during the legislative session of the difference between the two technologies and that is why we adjusted the language in the bill.

We made it clear in the legislation that the list was not exclusive and included a general provision (item no. 18) which I intended to give the TCEQ discretion to add additional technologies when supplementing their PEL in the future as they see fit. This provision should not be interpreted as vastly expanding the fundamental purpose and scope of HB 3732.

2. Recognition of Pollution Control Exemption Despite Product or Co-product Generation by the Same Equipment

I understand that there has historically been a debate about whether and to what extent pollution control tax exemptions can be allowed for equipment that might also be involved in production. I am also aware of the debate that has existed when a facility has figured out a way to sell, as a product, materials that accumulate within a pollution control device (e.g., fly ash). One of the goals of the legislation this session was to ensure that TCEQ had the authority and direction from the legislature to recognize that pollution control benefits can be derived from the manner in which fuel is prepared and used, and from increasing the efficiency of certain facilities. By doing so, the amount of fuel needed and the total amount of pollution emitted can be reduced. I did not intend, nor do I support, an interpretation of anything in HB 3732 to prevent electric generating facilities from receiving exemptions for equipment simply because they also derive profit from a given piece of equipment or process. If it reduces pollution, it qualifies.

I am aware that some of the items on the HB 3732 list include entire generation processes like "fluidized bed combustion systems" and "ultra-supercritical pulverized coal boilers" which were included for the reason stated above - the manner in which the fuel is used helps reduce pollution. Consistent with the process put in place by HB 3121 in 2001, if TCEQ receives documentation justifying that less than 100% of an exemption should be granted for such processes, we have afforded the TCEQ discretion under the bill to include an item on the PEL for less than 100%. I understand that the TCEQ's initial plan is to assume a 100% exemption unless documentation establishes a legitimate basis for a lesser percentage. I support that approach because, again, the goal of the legislation is to reduce pollution.



RICHARD L. "RICK" HARDCASTLE
HOUSE OF REPRESENTATIVES

ATTACHMENT 2

October 31, 2007

The Honorable Greg Abbott
Attorney General
State of Texas
P.O. Box 12548
Austin, Texas 78711

Re: Attorney General Opinion Request (RO-0635-GA) for interpretation of the intent of H.B. 3732, 80th Regular Session, Texas Legislature

Dear General Abbott:

This letter is being submitted in response to the request for an attorney general opinion submitted by Buddy Garcia, Chairman, Texas Commission on Environmental Quality ("TCEQ") regarding the legislative intent of H.B. 3732, which I authored and Senator Averitt sponsored in the Senate during the 80th Legislature.

The purpose of H.B. 3732 was to encourage the construction of advanced clean energy projects ("ACEPs") to meet the growing demand for electricity in Texas as well as increasing demands for pollution control. The incentives include grants, loans, tax exemptions and a streamlined permitting process. The bill also clarified current law regarding pollution control property exemptions and ensures that new and existing power plants receive expedited determinations for certain categories of pollution control equipment.

The question submitted by Chairman Garcia is whether "H.B. 3732 and its legislative history, limits the TCEQ's rule implementation of §11.31(k) [and §26.045(f)] of the Texas Tax Code to pollution control property associated with advanced clean energy projects, as defined in Texas Health and Safety Code, §382.003?"

It was not and is not my intent as the author of the bill to limit equipment eligible for a property tax exemption under §11.31(k) (or the corresponding change in §26.045(f)) of the Tax Code to advanced clean energy projects. In addition, I am confident you will not find anything in the legislative history to support that interpretation. In fact, all indicators of intent are quite the opposite. Since it will take several years to bring ACEPs online, we wanted to encourage current power plants to continue installing pollution control equipment.

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October 31, 2007

Page 2

While I have provided this background information to give you some context on why the statute was drafted the way it was, I understand your office will focus primarily on the unambiguous language of the statute. As Attorney General Cornyn stated: "we must first consider the statute's plain and common meaning on the presumption that the legislature intended the plain meaning of its words. If possible, we must ascertain the legislature's intent from the language it used in the statute and not look to extraneous matters for an intent the statute does not state ... [w]e look to legislative history only if a statute is ambiguous."

The statute is not ambiguous. Section 11.31(k) states that the "Texas Commission on Environmental Quality shall adopt rules establishing a nonexclusive list of facilities, devices, or methods for the control of air, water, or land pollution, which must include... [a list of 18 types of equipment follows]". As Attorney General Abbott stated in Opinion No. GA-0202, "[w]e presume that every word or phrase in a statute has been chosen for a particular purpose."³ The opposite is also true, if the legislature chooses not to use a particular word or phrase, it is for a reason.

In drafting §11.31(k) (and the corresponding change in §26.045(f)) of the Tax Code, if the legislature wanted to limit its application to pollution control equipment for ACEPs, we could have instructed the TCEQ to adopt rules "establishing a nonexclusive list of facilities, devices, or method for the control of air, water or land pollution associated with advanced clean energy projects..." We did not, however, choose to use these words, and we did not tie it in some other way to the definition of ACEPs. This was no accident.

In fact, the legislature purposely uses the word "nonexclusive," which means it did not want to place any unnecessary limitations on the type of equipment provided an exemption under this section of the Code as long as it met the definition contained in §11.31(b) adopted by the 73rd Legislature.⁴ Attorney General Opinion No. DM-448 says "[a] statute is presumed to have been enacted by the legislature with complete knowledge of and with reference to the existing law."⁵ The law prior to the 80th Legislature did not limit the tax exemptions under this section to ACEPs, and by not placing such a limitation in subsection (k), the legislature understood that the existing definition would apply.

³ Op. Tex. Att'y Gen. No. JC-0567 at 4 (2002).

⁴ Op. Tex. Att'y Gen. No. JC-0567 at 4 (2002).

⁵ Op. Tex. Att'y Gen. No. GA-0202 at 3 (2004).

⁶ Section 11.31(b), Texas Tax Code, defines "facility, device, or method for the control of air, water, or land pollution" as "land that is acquired after January 1, 1994, or any other structure, building, installation, excavation, machinery, equipment, or device, and any attachment or addition to or reconstruction, replacement, or improvement of that property, that is used, constructed, acquired, or installed wholly or partly to meet or exceed rules or regulations adopted by an environmental protection agency of the United States, this state, or a political subdivision of this state for the prevention, monitoring, control, or reduction of air, water or land pollution."

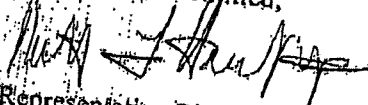
⁷ Op. Tex. Att'y Gen. No. DM-448 at 4 (1997).

October 31, 2007
Page 3

Although the statute's language is unambiguous and there is no reason to look to the legislative history for guidance, it should be pointed out that nothing in the legislative history of the bill contradicts the plain meaning of the statute. I am confident you will not find any evidence to suggest that these tax exemptions should be limited to ACEPs.

Thank you for your service to our great state and your consideration of this letter. I understand that your resources are limited and that you have numerous pending opinion requests to address. That being said, the Commission is under a statutory deadline to adopt rules on this issue by January 1, 2008, so any effort you can make to expedite the response to Chairman Garcia's request would be greatly appreciated.

Respectfully submitted,


Representative Rick Hardcastle

RH/rw